Rural-urban linkages and local economic development in Nekemte and its surroundings, Oromia, Ethiopia

By

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Table 1 Arrangements of manuscripts in the thesis structure and their submission status

Chapter:	Manuscript Title:	Manuscript Status:	Journal Publishers:
Chapter Two	Netchain: An Analytical Approach to Local Economic Development	Published	*The Marketing Review*
Chapter Three	Unpacking Local Economic Development	Published	*International Journal of Public Administration*
Chapter Four	Netchain Analysis of Maize and Niger Seed Value Chains and Local Economic Development	Under review	*International Journal of Geography and Regional Planning (IJGRP)*
Chapter Five	Local Institutions and Local Economic Development	Accepted	*Journal of Poverty Alleviation and International Development (JPAID)*
Chapter Six	Bridging the Rural-urban Divide for Local Economic Development	Accepted for publication	*Journal of Agriculture, Food Systems, and Community Development*

Statement of Ethical Conduct

The research associated with this thesis abides by the international and Australian codes on human and animal experimentation, the guidelines by the Australian Government's Office of the Gene Technology Regulator and the rulings of the Safety, Ethics and Institutional Biosafety Committees of the University of Tasmania. The Tasmanian Social Sciences HREC has approved (Ethics Ref No: H0013514) this research.

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Dedication

This thesis is dedicated to my wife Bidike Almadi Dembel and my daughter Keyeron Megerssa Tolessa who have always stood by me and dealt with all of my absence from many family occasions with a smile. It is also dedicated to my mum Bachu Ejeta who emphasised the importance of education and helped me with my lessons throughout her life.

Abstract

The Ethiopian government has been crafting successive development policy frameworks to end poverty since the overthrow of the military rule and establishment of the Ethiopian People's Revolutionary Democratic Front (EPRDF) in 1991. These include Sustainable Development and Poverty Reduction Programme (SDPRP)-2002/03-2004/05, Plan for Accelerated and Sustainable Development to End Poverty (PASDEP)- 2005/06-2009/10, and the first (2010/11-2014/15) and the second (2015/16-2019/20) Growth and Transformation Plans (GTP1 and GTP2). SDPRP, in its key sectoral development policies and strategies, underlined the need to exploit the benefits of linking agriculture and manufacturing for economic development. Subsequently, PASDEP adopted the need to strengthen rural-urban linkages as one of the key pillars of development and aimed to enable the linkages for a strong local/regional economic development. This study sought to examine the nature and drivers of local economic development (LED) by analysing the linkages between Nekemte Town and its hinterlands in Guto Gidda district of Oromia region in Ethiopia using an ethnographic case study research method. The literature review focused on LED in the context of the rural-urban interface including an analysis of the aims of LED, the processes of LED, and the enablers of LED. The study used field data related to maize (*Zea mays*) and niger seed (*Guizotia abyssinica*) value chains to empirically examine whether or not the Ethiopian government development policy positions have translated into an enabling environment for stronger rural-urban linkages. The data were gathered mainly through in-depth interviews with LED actors including farmers, traders, small-scale manufacturers, and local authorities both in Nekemte and its hinterlands. A total of 51 interviews (30 farmers, nine traders, ten small-scale manufacturers and two agricultural extension workers) were conducted. The audio records were transcribed and uploaded

into Nvivo for categorisation into themes. Publicly available secondary data including reports from the district administration, municipal administration, and agricultural office were included to support the primary data. An ethnographic approach was used to gain an understanding of local actors' perspectives on LED and to collect in-depth data on the economic activities of those involved in the production, processing and marketing of the two commodities. The research applied multiple analytical lenses to analyse the field data. Netchain analysis was employed to analyse the flow of resources between Nekemte and its hinterlands, and the implications of the linkages for LED. The study applied institutional analysis (IA) to analyse the influences of local institutions on LED. The results of this study indicate that the attempt of the Ethiopian government to strengthen rural-urban linkages remained on paper as the nature of local economies observed on the ground promote dichotomy between urban and rural areas with little or no coordinated development planning between the two. The flows of people, commodities, finance, and market information between Nekemte and its hinterlands are ad hoc and thus unable to generate effective and strong resource cycles between the two areas. The study further indicates that the majority of the current production of these two commodities are subsistence and is unable to meet the demand of the market (urban areas). Grain marketing is dominated by traders. Poor market information and lack of coordination and trust between value chain actors hamper effective trading. Processing is characterised by traditional and small crushing facilities with inadequate capacity, low hygiene, and lack of safety standards. The result also demonstrated that the preference of local development actors to accept and practise one type of local institution over the other and the weak functional linkages between the institutions challenge the significant contributions of the institutions in LED processes. Most farmers, traders, and small-scale manufacturers practise indigenous institutions in

preference to government institutions. The indigenous institutions are culturally embedded and universally accepted practices. The study recommends investments in infrastructure, improved provision of rural microfinance, ensuring affordable agricultural inputs, and providing a practical policy guideline to improve rural-urban linkages and thus help strengthen LED. Mutual and collaborative functional linkages between the government and indigenous institutions to maximise the contributions of both to LED is critical. The policy framework of rural-urban linkages and LED in Ethiopia can be helpful to move forward towards its implementation.

Keywords: Local economic development, agricultural industries, rural development, urban development, institutions, rural-urban divide, netchain, Ethiopia, Oromia, Guto Gidda district.

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List of Acronyms

ADLI	Agricultural Development-Led Industrialization
CSA	Central Statistical Authority
DA	Development Agent
DAO	District's Agriculture Office
DLDP	District Level Decentralisation Program
EPRDF	Ethiopian People's Revolutionary Democratic Front
FA	Farmers' Association
FCA	Federal Cooperative Agency
FCU	Farmers' Cooperative Union
FTC	Farmers Training Centre
GDP	Gross Domestic Product
GTP	Growth and Transformation Plan
IA	Institutional Analysis
IAD	Institutional Analysis and Development
ICT	Information Communication Technology
IT	Information Technology
LED	Local Economic Development
MSE	Micro and Small-scale Enterprises

NA	Network Analysis
NGOs	Non-Governmental Organisations
NIE	New Institutional Economists
OCSSCO	Oromia Credit and Saving Share Compony
PASDEP	Accelerated and Sustained Development to End Poverty
SC	Supply Chain
SCA	Supply Chain Analysis
SCM	Supply Chain Management
SDPRP	Sustainable Development and Poverty Reduction Programme
SNNPR	Southern Nations, Nationalities and Peoples' Regions
UMP	Urban Management Program
UNDP	United Nations Development Programme
VAT	Value Added Tax
VC	Value Chain

Chapter 1: Introduction

1.1. Background to the Problem

In traditional development planning, regional and local economic development (LED) planners viewed urban and rural areas as two distinct geographic units. As a result, most development theories and practices were implicitly based on the dichotomy between urban and rural areas, which reflected itself in the division of policies along spatial and sectoral lines. Urban planners focused on urban nodes and gave inadequate attention to agricultural or rural-led development while rural development planners tended to disregard urban centres and define rural areas as consisting only of villages and their agricultural land (Tacoli 1998a). The dichotomous development approach widened disparities between urban and rural areas in terms of economic conditions, access to infrastructure and services, opportunities for socio-economic mobility and control over natural resources (Manyigbe 2015).

Recent development thinking has turned attention to the mutual development of both urban and rural areas through strengthening rural-urban linkages as the traditional development approaches failed to bring the intended development outcomes. Urban and rural areas are interlinked through the flows of people, capital, goods and services, employment, information and technology between the two areas (Okpala 2003; Eppler, Fritsche & Laaks 2015; UN-HABITAT 2015). Tegegne (2001) also observed that an attempt to bring about rural development by focusing on structural sectoral problems in Ethiopia has failed to achieve the desired changes. This resulted in the emergence of rural-urban linkages as a development approach in the regional planning literature (Douglass 1998). The rural-urban linkages approach to development focuses on the mutual development of both urban and rural areas. It is assumed that both of the areas are interdependent through the flow of resources and other linkages. Urban areas provide markets for agricultural and rural commodities and rural areas

provide agricultural surpluses to the urban area (Akkoyunlu 2015). These flows transcend a strictly rural-urban divide and rely on both rural-based and urban-based resources in a locality. LED can be defined as processes in which local development actors (the public and private sector organisations and individuals) seek to grow local economies, increase local employment and reduce unemployment, attract investment, retain and expand existing industries, and connect them to extra-local value chains (Wekwete & Chancellor 2014).

This thesis argues that rural-urban linkages have the potential to promote strong LED by contributing to the well-being and livelihoods of the residents of both urban and rural areas and providing an exit out of poverty. Sustainable rural growth and urban growth are positively correlated because stable urban service sectors may provide more jobs by absorbing migrant labourers from the rural areas and supplying (semi) processed products to the same which in turn generates a significant proportion of urban incomes. Rural-urban linkages enhance sustainable LED as the linkages channel resources from producers to consumers creating economic benefits for the locality. These linkages also have a potential to stimulate diversification of economic activities in rural areas, particularly when they are in a geographic proximity. However, relevant development policies are required to achieve this success that encourages all actors including the private sectors to contribute their share to stimulate LED.

Strong rural-urban linkages could foster development along a broad spatial continuum with backward and forward linkages rather than treating rural and urban areas in isolation (Von Braun 2007). Rural residents stand to gain from market and migration opportunities, given that urban areas not only serve as sources of demand for rural farm and non-farm products but also offer prospects for higher-paying employment. At the same time, urban areas can gain from these linkages with rural areas serving as both an outlet for urban goods and as a stable source

of affordable food. In addition, agriculture and rural development also have the potential to create jobs in cities through value-added services. Rural and urban areas are thus economically, socially and environmentally interdependent and the linkages between them are essential for economic growth and sustainable development (Tacoli 2004).

Rural-urban linkages for LED require much attention because of the radical changes that have been happening in developing countries in recent years (Sheng 2002). These changes include an enhanced understanding of the complexities of poverty, the growing adoption of the free-market economy, rapid urbanisation, the intensification of the rural-urban linkages, and the decentralisation of government responsibilities to lower levels of government. The perceived link between the urban and the rural areas is evolving rapidly, shifting away from the assumptions of mainstream paradigms to new conceptual landscapes where rural-urban links are being redefined (Adell 1999).

Broadly, rural-urban linkages can be spatial linkages (flows of people, finance, goods and services, information and wastes); sectoral linkages (interdependence between agriculture, industry and services); and physical linkages expressed through infrastructural, transport, and communication linkages (Tacoli 2003; UNESCAP 2005; Von Braun 2007; Dorosh et al. 2011; Berdegué, Proctor & Cazzuffi 2014; Eppler, Fritsche & Laaks 2015). In economic terms, rural–urban linkages are usually distinguished as consumption linkages (demand for final products), production linkages (backward or forward supply of inputs among businesses and labour), and financial linkages (for example, rents extracted by urban landlords, remittances by migrants, rural savings channelled through urban institutions). While backward linkages encompass the distribution of inputs, forward linkages include the processing of outputs (Gete, Trutmann & Aster 2006). Tacoli (1998b) adds another dimension of inter-sectoral linkage wherein rural

activities (such as urban agriculture) take place in urban areas and urban activities (such as manufacturing and services) in rural areas.

An important issue for effective development policies is that which linkages matter locally, and how they may be mobilised for LED efforts since they do have different effects under different settings. Most of the time the poorest areas may have little more than consumption linkages while production linkages emerge in more diversified settings, as the case where rural workshops start to supply parts to urban factories. Financial linkages tend to appear in all settings, but with different outcomes for rural economies. The rise of globalisation and the role of information communication technology (ICT) may contribute to bypass effects when financial flows link rural areas directly with distant and larger cities (DFID 2002).

Strong rural-urban linkages facilitated by infrastructure can improve the living conditions and employment opportunities of both rural and urban populations. Domestic trade and the adequacy and efficiency of infrastructure are the backbones of mutually beneficial rural-urban relationships. The flows of people, goods, finance, and information, as well as other social transactions that are central to socio-cultural and economic transformation, influence both rural and urban change, and influence resource use and management (Tacoli 2002, 2003). Rural-urban linkages have the potential to stimulate diversification of rural economies and rural livelihood strategies, and transform agriculture especially in developing countries (Dorosh et al. 2011; Mushir & Meaza 2013; Eppler, Fritsche & Laaks 2015; UNESCAP 2015).

The livelihoods of both the urban and rural areas in a locality are interdependent (Ozor, Ozioko & Acheampong 2015). Studies show that a substantial proportion of rural household income is derived from non-farm occupations (an average of 40 percent in Latin America and the

Caribbean, 45 percent in Africa and 35 percent in Asia). Similarly for instance, urban households supply 20 percent of the rural agriculture labour force in Chile (Davilla 2002). The rural non-farm activity in Africa is linked directly or indirectly to local agriculture or small Towns and this strongly influences the development of the locality (Adepoju Abimbola & Obayelu Oluwakemi 2013).

Another study in Zambia revealed that integrating rural and urban development accelerates local development because successful rural development stimulates and supports urban development, and urban development is a key impetus to rural development (Chulu 2015). The fast-growing economies of the Southeast Asian 'miracle' or the changes in the organisation and management of certain selected areas of China with special market-oriented policies are providing indications that fast urbanisation processes featuring a synergetic mix of agricultural and industrial activities are creating economic growth (Adell 1999). This evidence indicates that rural-urban linkages play a central role in the various aspects development of both urban and rural areas. Yet, for various reasons, LED policies are not taking advantage of these synergies in many developing countries. In Ethiopia, the development policy and planning has been either urban-biased or rural-biased until the recent time (Tegegne 2001). These unbalanced urban-rural linkages policies and strategies limited the socio-economic interaction of the two areas, which in turn, adversely affected LED processes.

At a theoretical level, the development policy of Ethiopia acknowledges the significance of rural-urban linkages for poverty reduction. The government sees rural-urban linkages as a policy priority for economic development and has been introducing successive development policies that encourage rural-urban linkages since 2002/03 (FDRE 2002; ; FDRE 2010 & FDRE 2015). The major development policy frameworks include SDPRP (2002/03-2004/05),

PASDEP (2005/06-2009/10), and GTP1 (2010/11-2014/15) and GTP2 (2015/16-2019/20). The initiatives under each framework build on one another. PASDEP restated the need to strengthen rural-urban linkages to maximise growth and reduce poverty by taking full advantage of the synergies provided through market integration, labour mobility, and access to income-earning opportunities between urban and rural areas MoFED 2005). It also underlined the important role of improving infrastructure (rural access roads, telecommunication, and rural electrification), and development of small-scale credit markets as key instruments to facilitate rural-urban linkages.

PASDEP linked rural transformation with a power supply since it observed that electricity transforms rural economies by providing the basis for businesses and agro-processing at regional/zonal Towns so that the rural to urban migration can be minimized. The rural electrification also eases stress on big cities and satellite Towns to process the bulk of agricultural production and also to properly utilise the agro-industrial by-products. PASDEP is expected to enhance the modernisation of agricultural production that could attract investors interested in agricultural production and establish ancillary industries in the regions (FDRE 2010). In its urban development strategy, PASDEP considered rural-urban linkages as one of the pillars whereby emphasis was given to the development of small Towns as a major entry point of resources MoFED 2005). Nonetheless, in the country, these good development policies are poorly implemented. The current LED approach in Ethiopia focuses only on urban areas and overlooks the elements of the rural sector in LED processes (FDRE & UNDP 2012).

1.2. Statement of the Problem

There is a growing concern over rural-urban linkages in local development studies because rural and urban areas are interconnected economically, financially, and socially. The linkages

between urban and rural areas play a crucial role in the generation of income, employment and wealth (Akkoyunlu 2015; Chulu 2015) in a locality because urban and rural areas are an integral part of the local economic landscape (Wandschneider 2004). In addition, Global Monitoring Report (2013) emphasises the important role of rural-urban linkages for poverty reduction. The majority of the food consumed in urban areas of developing countries comes from the surrounding rural areas (Ziervogel & Frayne 2011). At the local level, rural and urban areas are linked together through the flow of people, commodities, capital and income, and market information among others, and this makes rural-urban linkages important for LED and poverty reduction (Eppler, Fritsche & Laaks 2015). Rural-urban linkages shape LED through migration, remittances, and resources flow across the rural-urban areas (Tacoli 2003; Berdegué, Proctor & Cazzuffi 2014). In this study, LED approach is understood in the context of rural-urban linkages. A locality includes a territory with a Town or Towns and the surroundings villages.

A better understanding of the rural-urban linkages is critical to the formulation of national poverty reduction strategies, particularly in countries experiencing rapid urbanisation or escalating rural-urban disparities (Jerve 2001). The growth of agricultural sector depends on access to urban markets and industrial inputs while the industrial sectors of the urban areas require raw materials from the rural sector (Tegegne 2001; Dercon & Hoddinott 2005; MoUD 2009). Urban areas need labour force (especially unskilled and semi-skilled) that rural areas have in abundance (Tostensen 2004). In line with this, such issues as the patterns of commuting/migration between rural and urban areas, the flow of intra-family resources across the rural-urban divide, the role of rural-urban links in strengthening poor people's capabilities for collective action, poverty, and the potential for achieving broad-based economic growth

through an improvement of linkages between and among rural and urban spheres need to be critically considered.

In Ethiopia, rural households undertake a significant proportion of their economic transactions in regional local market Towns (Towns and small- and medium-size cities, as opposed to large cities and metropolitan areas), where they purchase, on average, half of their needed agricultural inputs and consumption goods (including food) and sell about a quarter to three-quarters of their crops and livestock (Dercon & Hoddinott 2005). These types of linkage provide socio-economic development in both rural and small-size and medium-size urban areas that stimulates LED processes. Apart from acknowledging the significance of rural-urban linkages for LED in its development policy frameworks, however, the government of Ethiopia has failed to take concrete action to facilitate mutual development between urban and rural areas.

While the policy intention to foster economic growth and reduce poverty (which are the two most important development agendas of the country) are the potential areas of concerns of LED processes, there is no corresponding framework of action to achieve it. The current practices of development policy implementation encourage the traditional dichotomous approach to the LED focusing on the urban areas, which not only retarded LED processes but also resulted in a misconception of understanding the LED processes. Developing this framework requires drawing on theory using the flow of production, information, and finance between and among the rural and urban societies.

Rural-urban linkages in Ethiopia in general and in the Nekemte and its surrounding areas in particular are by and large weak owing to factors such as exclusive promotion of urban or

rural-based developments (at the expense of the other) and insufficient trade links between Towns and the countryside (Adugna & Hailemariam 2011). This resulted in low development of infrastructures, weak community participation in development planning and dichotomous views of policy makers. Tegegne (2001) identifies that factors such as those related to production and distribution of agricultural and industrial goods, and movement of labour forces negatively influence rural-urban linkages. Further, he observes that the magnitude and strength of rural-urban linkages in Ethiopia are also not clearly recognised. The capacities of both areas in supplying the necessary products to each other are also limited. Furthermore, Zewdu & Malek (2010) posit that the main reason for the poor rural-urban linkages in Ethiopia is the subsistence nature of agriculture coupled with the fragile nature of the market, lack of efficient domestic transport, and absence of competitive wholesale and retail agricultural inputs impacting the flows of goods and services between the two areas.

Further, despite strengthening rural-urban linkages for mutual development of both urban and rural areas is one of the five pillars of the development plan of Ethiopia (), no one has yet studied the nature and drivers of LED processes by analysing rural-urban linkages. The conceptualisation of the LED is also vague as the practice of LED processes is sectoral in nature. Research conducted so far has not given due attention to all the types of linkages in the area. They ignore the influence of the horizontal linkages on LED processes. For example, Tegenge (2001) studied flows of agriculture and industrial goods, labour and finance, and some aspects of sectoral linkages between agricultural and industrial products as well as public service linkages but gave inadequate attention to the flows of ideas, information and diffusion of innovation that could greatly affect the interdependence. In my own study in 2010, I also focused only on the vertical production and consumption linkages (Walo 2010). The present

study sought to understand the drivers of LED processes by analysing rural-urban linkages in the Guto Gidda district.

The study of rural-urban linkages and LED involves vertical and horizontal linkages between and among individuals and firms in the LED processes. Vertical linkages refer to relationships between a firm and its buyers and suppliers and it is concerned with how internal value chains of a firm are related to those of its buyers and suppliers (Hergert & Morris 1989; Dekker 2003). It also represents channels for non-financial transactions such as learning and information from one firm to another along the chain, which are important elements of buyer-seller relationships (Choudhary 2008). These linkages are linear involving the actors designing, producing, marketing, and distributing goods or services (Trienekens 2011) and are analysed through the lens of supply chain (focusing on the upstream flows of resources by improving efficiency and reducing waste) and value chain (focusing on the downstream resource flows by creating values in the eyes of customers).

Both value chain (VC) and supply chain (SC), however, overlap in the whole system of interaction between firms to provide goods and services (Ramsay 2005). Horizontal linkages represent the formal or informal relationship between firms performing similar functions and are analysed using network analysis (NA) (Powell 1990). Such linkages are made up of firms that share similar technology or service needs, whether or not they are in the same product chain, to reduce transaction costs and generate economies of scale (Campbell 2008). The linkage may also help small-scale producer groups to have strong potential to increase their bargaining power in the marketplace, while processors, suppliers, and traders may also form their own groups to strengthen their position within industries.

Vertical and horizontal linkages are better analysed through the value chain, supply chain, and networks studies between and among the key LED actors of producers, traders and small-scale manufacturers (Lazzarini, Chaddad & Cook 2001). This is because the key issue of rural-urban linkages and LED is not only the flow of resources from the rural to urban areas and vice versa, but it also includes the influence of social capital that bonds and bridges the linkages for a better and strong local economy. The influence of local institutions in the LED processes is also significant in studying rural-urban linkages and. Local institutions can facilitate LED processes by reducing transaction costs, enhancing social capital, and creating enabling environments for business to flourish. Institutions play a central role in mobilising resources and regulating their uses for the benefit of the local economy (Uphoff 1992).

LED processes involve the interaction of different actors in a complex and multifaceted way in the development processes. It also transcends the rural-urban divide and links agriculture and non-agriculture economic sectors. Understanding such a multifaceted development approach requires a methodology that is built on the constructivism research philosophy, and that understands the world as a complex and interconnected platform (Della & Keating 2008; Klenke 2008). The constructivist worldview is appropriate in this study of rural-urban linkages and LED as knowledge is socially constructed with no single, observable reality (Merriam 2014).

Following the constructivist philosophy, this study applied an ethnographic case study research method that is able to grasp the subjective meaning of social action through in-depth interviews. To analyse the multifaceted linkages between the LED actors and evaluate the roles of local institutions in LED processes, netchain and institutional analysis (IA) of a case study were used. While netchain analysis helped to obtain a good picture of the influence of the different types

of rural-urban linkages on LED (Lazzarini, Chaddad & Cook, 2001), IA made clear the types and functions of local institutions in the LED processes (Pritchard 2014). The details of the netchian analytical approach and IA are discussed in chapter 2 and chapter 5 respectively.

1.3. Justification for the Research

The Ethiopian government has been adopting several development policies and strategies since 1991. Particularly since 2002, the five-year successive development policies and strategies aim at poverty eradication (FDRE 2002; ; FDRE 2010; FDRE 2015). One of the major pillars of the successive development policies and strategies is promoting rural-urban linkages for a strong local economy. However, the development policy lacks sufficient actions for its implementation to enhance rural-urban linkages (FDRE & UNDP 2012). The current development policy implementation follows a sector-based LED process that focuses on economic sectors (agriculture and industry), rather than on integrating geographic areas (rural and urban), along with an implicit assumption that agriculture can be equated with rural areas and industry with urban areas (Dorosh et al. 2011).

The conceptual ambiguity about LED in the country is another problem of development policy-makers and planners. There is no clearly defined theoretical model for LED as local development actors have their own local reality by which they understand the concept (Rogerson & Rogerson 2010). Every Town, city or community has unique local conditions that either help or hinder the basis for designing and implementing LED strategies. To solve this problem of conceptualisation and have a common understanding about LED processes of a specific locality, various perspectives of the local development actors have to be explored. Through the flows of resources between the urban and rural areas, the economy of the locality

can be strengthened. Understanding this locally-specific concept of LED process is not easy without the use of appropriate method and approach. Ethnographic method is the most appropriate because it helps to unpack the locally-specific understanding of LED approach. This helps in the establishment of a framework for rural-urban linkages that best explains LED.

In its attempt to build up the economic capacity of a locality for a better life for the residents, LED processes focus on the mutual development of both urban and rural areas. Rural and urban areas are linked through the flow of people, commodities, finance, and information among others; these flows make rural-urban linkages important for LED and poverty reduction (Eppler, Fritsche & Laaks 2015). Urban areas provide markets for agricultural and rural commodities and rural areas provide agricultural surpluses to the urban area (Akkoyunlu 2013). Notwithstanding the significance of rural-urban linkages for LED, in Ethiopia, the linkages between the two areas remain weak. The study aims to identify some of the underlying causes contributing to weak rural-urban linkages. The importance of the study rests in the fact that LED related studies are under-researched and this is particularly true in the study area.

Rural-urban linkages and LED may be studied through different lenses including value chain, supply chain, and network. A value chain is defined as the linked set of value-creating activities all the way from basic raw material sources for component suppliers through to the ultimate end-use product delivered into the final customers' hands (Shank 1989). The supply chain is similar to value chain but the former usually focuses upstream on integrating supplier and producer processes, improving efficiency and reducing waste (Feller, Shunk & Callarman 2006). Network analysis is concerned with horizontal relationships between firms belonging to a particular industry or groups of industries involving intricate, multifaceted, and durable

relationships (Powell 1990). These analytical approaches can be categorised into two groups of either vertical or horizontal linkages depending upon their specific interests.

This study applies netchain analysis incorporating value chain, supply chain, and networks (Lazzarini, Chaddad, & Cook 2001); and institutional analysis (Woodhill 2010) to study rural-urban linkages and LED because using these multiple approaches, it is possible to understand the multifaceted concepts of LED by analysing rural-urban linkages. Netchains are a set of networks comprising both horizontal and vertical linkages. Netchain approach is a recent analytical approach in chain relationship studies in different settings where only a few researchers, most of whom are concerned with organisational relationships (Trienekens 1999; Cox et al. 2004; Ireland 2004; Althoff, Ellebrecht & Petersen 2005; Storer & Taylor 2006; Cleary 2012; Nijhoff-Savvaki, Trienekens & Omta 2012) have practically applied the approach. Netchain (zero level chain as Storer and Taylor 2006 call) is useful to get an overview of chains and highlights the weaknesses or opportunities to improve the chain performances, but fails to provide enough detail to make a judgement on how to solve the problems. Storer and Taylor (2006), therefore, propose a multiple level chain relationship with the addition of details to the netchain to show the nature of the relationship strengths and operational mapping tools. They used survey technique of data collection to assess the different organisations, trading volume, and the strength of relationships (Storer & Taylor 2006).

My study, nonetheless, focuses on identifying key individual farmers, traders, processors and local agriculture experts involved in the value chain where there is no need for mapping internal relationships among departments and levels of an organisation. The production processes are mostly small-scale where the majority of farmers are subsistence producers. Traders are mostly collectors and intermediaries where the influence of social relationships on

the agro-business is high. In such societies, looking at the socio-economic relationships between and among individuals and groups gives a good picture of LED process. This paper argues that netchain is the best approach to use when the aim is to understand rural-urban linkages and LED in a locality and when the firms are quite small to a level of one person or one family. Besides, the traditional chain approaches are aimed mainly at understanding commodity chains in a business scenario.

Netchain approach in this paper, however, goes beyond the business of commodity chain to include a social capital aspect of the relationship as it is crucial in studying rural-urban linkages and LED processes in developing countries. Institutional analysis (IA) of a case study (Yin 2013) is used to analyse the influence of local institutions on LED and the functional linkages between the different kinds of local institutions. IA refers to the research and analysis of, and generation of understanding about, institutions (Pritchard 2014). It is grounded in a consideration of both government and indigenous rules (Holland 2007; Crase & Gandhi 2009). It also helps to address the question of what sort of local institutions are relevant to LED processes and why.

The focus of the study is to understand LED processes by analysing the linkages between Nekemte Town and its hinterlands in Guto Gidda district using maize and niger seed value chains. The favourable agro-ecology of the district for the production of wide range of variety of crops is unable to well forge the development of the locality because of the weak linkages between Nekemte and its hinterlands. This is because the rural areas are unable to produce enough food and raw materials, and the urban area is unable to serve as a market centre. The latter is also unable to produce adequate goods and services that satisfy the needs of its

hinterlands. Local development planners have not clearly recognised the magnitude and strength of rural-urban linkages and this has resulted in weak linkages between the two areas.

Both maize and niger seed play a significant role in rural-urban linkages and LED of the study area. They are the most popular crops almost exclusively produced by smallholder farmers for local consumption in the area. Maize is the second most widely cultivated cereal crop in Ethiopia and *Teff* (*Eragrostis tef*) is the most important staple food product in terms of calorie intake especially in rural Ethiopia (Dorosh & Rashid 2013; Abate et al. 2015). Niger seed is an economically important edible oil seed crop constituting about 50 percent of the oilseed production in the country (Syume & Chandravanshi 2015). Apart from its domestic importance as a source of edible oil, it is exported to different countries and generates much-needed foreign currency for the country (Allaro 2011).

This study conceptualises LED from the perspective of rural and urban linkages, and thus, the rural areas surrounding the Town area also included. It answers key research questions related to factors affecting production, marketing, and processing of grains and flows of people and market information in the study area. It also conceptualises LED from the perspectives of local economic actors. The research further illuminates the relationships and flows of people, commodities, finance and information between Nekemte and its surroundings, and the impacts of the linkages on the development of the locality. A strong local economy would improve the quality of life of the residents in both the urban and rural areas because this encourages the local development actors to contribute their parts to the local economic growth, increase local employment, and attract investments to the locality among others. Using netchain analysis, this study elucidates the multidimensional interrelationships between LED actors that the traditional chain analyses fail to do. It also assesses how the indigenous institutions interact

with the government institutions and the effects of these interactions on specific LED actors. While the research focuses on the context of Ethiopia, the outcomes will be useful for local and regional development planners and policymakers across the developing world.

1.4. Objectives of the Study

1.4.1. General Objective

The principal objective of the research is to understand the nature and drivers of LED by analysing rural-urban linkages in Guto Gidda district using maize and niger seed value chains. These two crops were selected because maize plays a significant role in the food security of the country in general and of the study area in particular. Maize is the most important staple food product in terms of calorie intake especially in rural Ethiopia (Abate et al. 2015). Niger seed is an economically important edible oil seed crop mainly produced by small-scale farmers (Syume & Chandravanshi 2015). By applying different techniques of netchain analysis and IA (details of the techniques are discussed in the methodology section), this study provides a full picture of maize and niger seed value chains from the source in the rural area through processing and marketing to the consumers in both urban and rural areas in the Guto Gidda district.

1.4.2. Specific Objectives

The specific objectives of the research feed into the general objective above. The specific objectives include:

- To conceptualise LED by exploring the drivers of LED processes from the point of view of the local economic actors;

- To assess the direction, scale and nature of flows of maize and niger seed, people, and market information between and within urban and rural areas of Nekemte Town and its surroundings;
- To develop netchain maps by identifying the major maize and niger seed value chain actors in Nekemte and its hinterlands;
- To evaluate the impacts of different types of local institutions on LED processes in Guto Gidda district;
- To identify the constraints the netchain actors' face that adversely affect the development of the locality and propose mechanisms and policy options that should be in place to strengthen rural and urban linkages thereby reducing both rural and urban poverty.

1.5. Research Questions

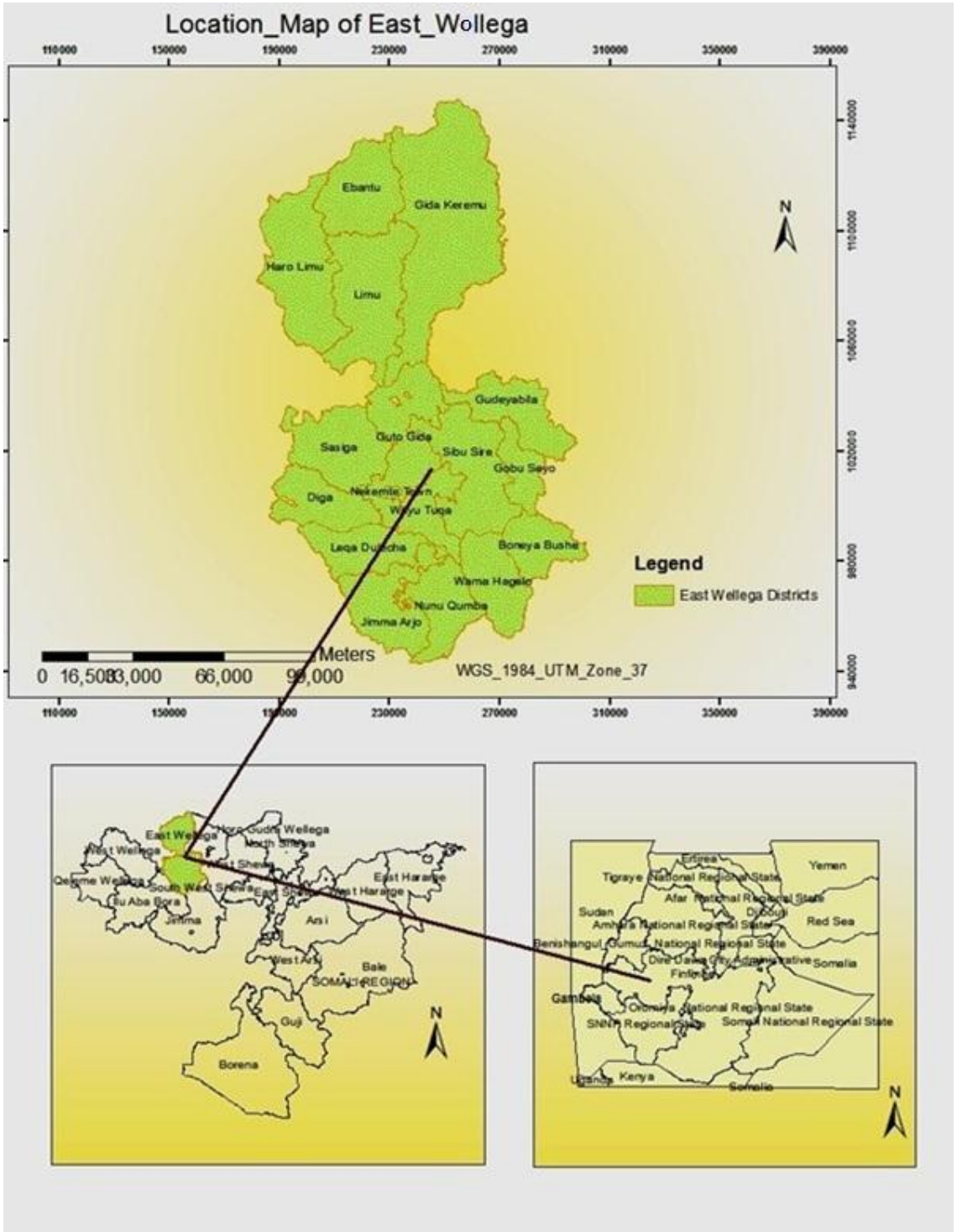
The research answers the following major questions:

- How is the term LED understood from different perspectives of the local development actors in Guto Gidda district?
- What are the direction, scale, and nature of flows of goods, people and information between urban and rural areas and within respective geographic areas?
- What are the factors affecting the existing rural-urban linkages and LED in the study area?
- What are the implications of rural-urban linkages for LED processes in the Guto Gidda district?
- What role do local institutions play in LED processes in Guto Gidda district?
- What framework of action needs to be in place to foster rural-urban linkages for a strong local development in Guto Gidda district?

1.6. The Study Area

Based on the contemporary ethnic-based federalism, Ethiopia is composed of nine regions and two chartered cities (see Figure 1.1). Oromia, the largest region in the country, has 18 zones, 304 districts (265 rural districts and 39 urban centres under reform) and more than 6889 Peasant and Urban Dwellers Associations (BoFED 2012). In 2009, the government launched an urban-based LED programme in seven selected Towns in the country, of which Nekemte and Asela were among those selected in Oromia region (FDRE & UNDP 2012). This study was conducted in Nekemte Town and its hinterlands in Guto Gidda district. Guto Gidda district is located in East Wollega Zone situated between 08° 59'and 09° 06` N latitude and 37° 51' and 37° 09' E longitude.

Figure 1.1 Location Map of East Wollega Zone



Source: Digitised by the author from Oromia Urban Planning Institute, 2014

Guto Gida is one of the 18 districts under the East Wollega zone and is located in the cradle of the zone and surrounding the Town of Nekemte. There are 29 Farmers' Associations (FAs) in

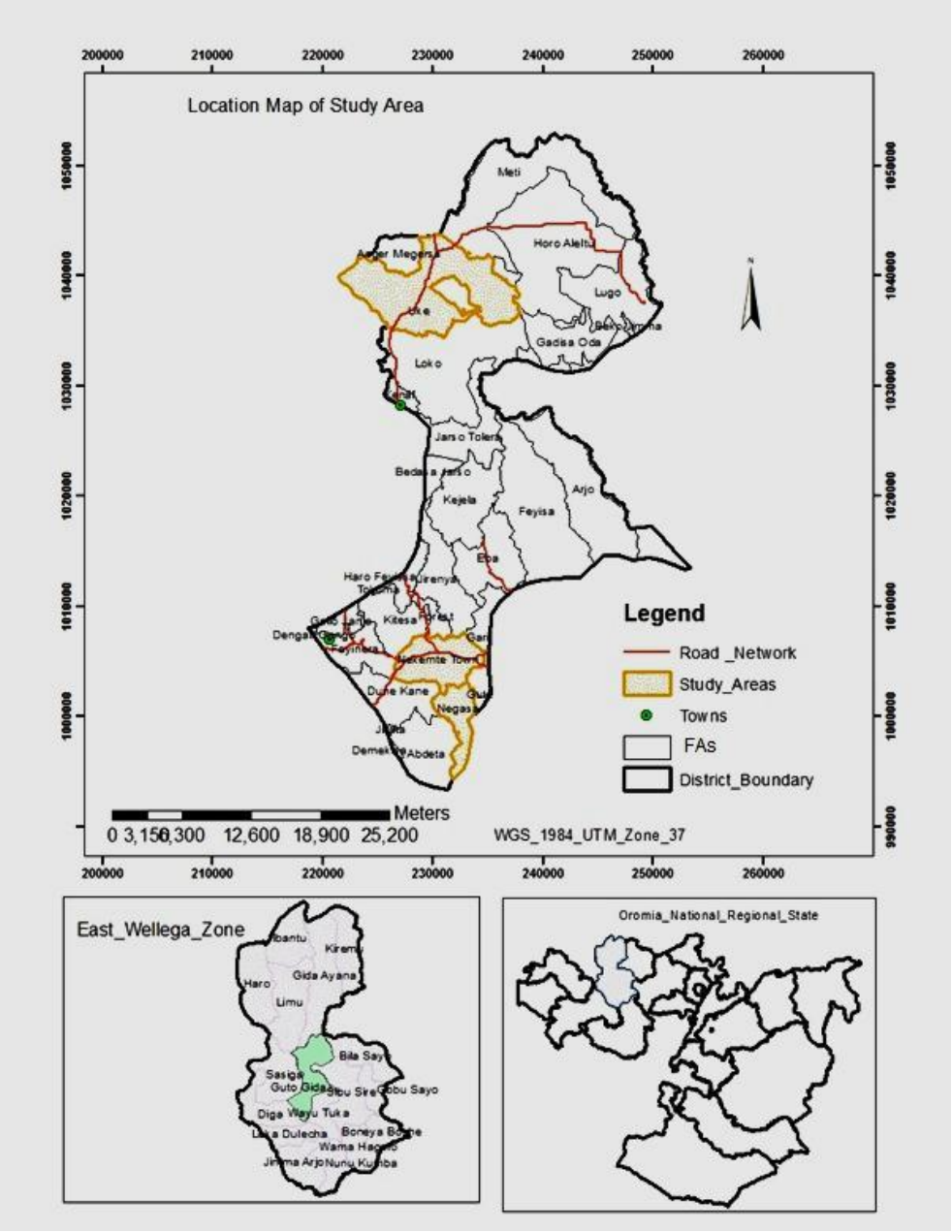
the district from which this research selected Uke (with 754 household members) and Negassa (with 655 household members) FAs because agricultural products used for this study are best grown in these two areas. The district is bounded by Gidda Ayana and Limu districts in the north, Leka Dulecha district in the south, Wayu Tuka and Sibu Sire districts in the east, and Digga and Sasigga districts in the west (see Figure 1.2). The district has a total land size of 1,091.5 square kilometres.

Guto Gidda district is agro-ecologically rich with a range of climates that suits for a wide variety of vegetables, fruits, cereal crops and other production. The agro-ecological zones of the district range from warm weather in the low altitude areas (such as Uke FA) to cool weather in higher altitude areas (such as Negasa FA). There are two broad agro-ecological classifications in the district: mid-altitude (1500-2500 metres above sea level) covering 513.005 square kilometres and low altitude (500-1500 metres above sea level) covering 578.495 square kilometres. The latter category covers 13 out of the 21 FAs. According to the data obtained from Guto Gida district Finance and Economic Development Office, the district enjoys tropical and sub-tropical climate with mean annual temperature and rainfall ranging from 16^0c to 31^0c and 580mm and 2200mm respectively.

In terms of its soil types, the district is dominated by loam (42.8 percent), sand (23.09 percent), clay loam (16.33 percent), clay (8.08 percent) and silt (9.7 percent). The majority of the community are agrarian (about 94.8 percent in 2010/11 and 94.4 percent in 2011/12) and reside in the rural areas. Of the rest, 5.2 percent and 5.6 percent lived in the district Towns of Uke and Lugo in the respective years. Its total population was 105,332 in 2013 (NRGO 2014). There are also a few small market centres including Bandira in the Negassa FA where small-scale traders

collect maize and niger seed from the farmers and trade the commodities in the nearby secondary markets (ORS 2014).

Figure 1.2 Location Map of Guto Gida District



Source: Digitised by the author from Oromia Urban Planning Institute, 2014

From the two Towns the Ethiopian government included in the urban-based LED programme in 2009, this study selected Nekemte Town because of the dominance of maize and niger seed production in the surrounding areas. Nekemte Town is the capital of Guto Gidda district and also of East Wollega Zone. It is located at latitude of 9°5′N 36°33′E and longitude of 9.083°N 36.550°E. The population of Nekemte Town was 115,741 in 2013 (FDRE 2013).

1.7. Research Methodology

1.7.1. Introduction

This chapter outlines the 'building blocks' of this research that are fundamental to studying rural-urban linkages and LED and answers the research questions set in line with the research objectives. There are multiple drivers of LED processes and also various actors involved in defining the concept of LED. These local actors also interact in a complex way (both horizontally and vertically) in the LED processes. In recognition of the interaction of the multiple actors in this study of rural-urban linkages and LED, this study is positioned within the philosophy of constructivism and epistemology of social constructivist. Following this philosophical ground, the research adopted an ethnographic case study research methodology and the use of in-depth interview and observation methods of acquiring data. Details of the research methodology, procedures of recruitment of research participants, data collection and analysis are discussed in the subsequent sections.

1.7.2. Philosophical Base of the Research

There is a strong interrelationship between the theoretical stance adopted by the researcher, the methodology, and methods used (Saunders, Lewis & Thornhill 2009). This philosophical base helps us to understand and answer the question of what constitutes the social reality-

ontological base, what it means to know the social reality- the epistemological base, and how to study the social reality- methodological base (Corbetta 2003; Gray 2014). Grix (2002) argues that there are logical links between ontology, epistemology, methodology and methods. Research starts from what the researcher thinks can be researched, linking it with what he/she knows about it and how to acquire it. Further, Grix (2002) differentiates methodology from methods asserting that the methodology is the science of the study of methods and the assumptions about the ways in which knowledge is produced. Method is techniques or procedures of selecting, collecting, organising and analysing data (Blaikie 2010).

There are two main ontological positions depending on whether the reality exists external to or within the mind of the individual (Table 1.2). These are objectivism (also called realism) asserting that social phenomena and their meanings exist independent of social actors, and constructivism (also called subjectivism) claiming that social phenomena and their meanings are continually constructed by social actors and thus in a constant state of revision. Likewise, there are two opposing epistemological stances contained within the perspectives of positivist and constructivist/interpretivist. The former advocates the application of the methods of the natural sciences to the study of social reality and beyond and the later views that a strategy is required that respects the differences between people and the objects of the natural sciences and, therefore, requires a social scientist to grasp the subjective meaning of social action (Grix 2002; Saunders, Lewis & Thornhill 2009). This study applied diverse methods and approaches including ethnographic method, netchain analysis and IA of a case study and approaches to understand the socially constructed meanings of the various aspects of socio-economic interaction between the LED actors that reflect different aspects of rural-urban linkages and LED processes (Collins 2010).

Charles Sanders Peirce, an American philosopher, introduced another knowledge claim- the pragmatism into philosophy in 1878 (Maxcy 2003). Pragmatism arises out of actions, situations, and consequences rather than antecedent conditions and concerns with applications and solutions to problems. It is mostly concerned with problems rather than methods being used and thus the researcher uses a pluralistic approach to understanding the problem (Neuman 2007; Creswell 2013). Pragmatists regard reality in two ways: first, they regard that there is an external world independent of our minds (which agrees with the positivists' view of reality) and second, they 'deny' that 'truth' can be determined once and for all. They also are unsure of the concept that one explanation of reality is better than another (Cherryholmes 1992).

Pragmatism argues that the research question is the most important factor determining the ontology, epistemology and methodology of a research and that it is possible to work with both positivist and interpretivist positions (Saunders, Lewis & Thornhill 2009), which is a mixed research method (Creswell 2013). This particular feature of the pragmatist research philosophy opens the door for the use of multiple methods, to have different world views and different assumptions as well as different forms of data collection and analysis through the application of both qualitative and quantitative techniques (Creswell 2014). However, application of a mixed method approach is time-consuming and requires extensive collection and analysis of data (Creswell 2012).

Table 1.1. Comparison of Basic research Philosophies in Social Research

	Objectivism	**Constructivism**	**Pragmatism**
Ontology - *What is the reality?*	- Knowledge exists independent of social actors - Objective - Single reality	- Knowledge is constructed by social actors, not discovered and may change - No single reality	- Reality is constantly negotiated, debated and interpreted - Reality is external and multiple - Truth is what works at the time, not based on strict dualism between the mind and reality completely independent of the mind
Epistemology - *What does it mean to know the reality?*	- Observable phenomena can provide credible data - Reality can be measured	- Subjective meaning of social phenomena - Researcher and object of study are not separate but interdependent	- The best method is one that solves problems - Focus on practical applied research - Integrating different perspectives for data analysis
Theoretical perspective - *Which*	Positivism	Interpretivism: - Phenomenology - Symbolic	- 'Free' to use methods, techniques, and procedures that

approach to use to know reality?		interactionism - Hermeneutic - Feminism	solve problems - The problem is more important than the method
Methodology - *How to go to find out the knowledge?*	- Application of natural science methods to study social reality and beyond - Quantitative strategy - Experimental research - Survey research	- Application of social science methods to grasp the subjective meanings of social actions - Qualitative strategy - Phenomenological research - Ethnography - Hermeneutical	Application of mixed or multiple method designs
Method - *What techniques to use to find out the knowledge?*	Quantitative: - Questionnaire - Measurement and scaling - Analysis 'by variables'	Qualitative: - Interview - Observation - Case study - Analysis 'by cases'	Combination of qualitative and quantitative methods

Source: Adapted from (Guba & Lincoln 1994; Saunders, Lewis & Thornhill 2009; Creswell 2013; Gray 2014).

This study is positioned in the *constructivist* ontological view which sees the world as a complex and interconnected platform where different actors interact (Della & Keating 2008; Klenke 2008), and where knowledge is socially constructed with no single, observable reality (Merriam 2009). Under this world view, social life is based less on objective, hard, factual reality than on the ideas, beliefs, and perceptions that people hold about reality. Thus, constructivist researchers often address the 'process' of interaction among individuals focussing on the specific contexts in which people live and work in order to understand the historical and cultural settings of the participants. Human beings 'construct' meanings as they engage with the world they are interpreting and this meaning 'construction' makes constructionism different from other philosophies (Crotty 1998). Thus, most qualitative researchers have the philosophical stand of constructivism as they believe that qualitative data can more accurately capture the fluid processes of social reality. This study applied qualitative research methods because of the ability of the methods to gain rich in-depth data on rural-urban linkages and LED processes. The qualitative method also uncovered trends in thought and opinions of the various actors in the LED processes.

Epistemologically also, the study is seated within the *(social) constructionist* tradition of knowing through phenomenological theoretical perspective. Phenomenological perspective helps in the production of 'thick description' of people's experiences and perspectives within their natural settings. There is a close similarity between phenomenological and ethnographic research in that both are based on description and interpretation of social reality. Their difference is that while ethnographic research focuses more on culture, phenomenology is more concerned with the human experience of 'life-world' (Gray 2014). Further, Bernard (2006) posits that good ethnography usually is good phenomenology.

From the conceptualisation of the term itself, LED is a multifaceted and complex process where various actors including the public and private sector organisations and individuals interact to bring about development in the territory. As the flows of resources (people, production, finance and information) between Nekemte and its hinterlands are used to understand rural-urban linkages and LED, *constructivist* perspective as posited by Saunders, Lewis and Thornhill (2009) is highly appropriate to this study. Further, the study of rural-urban linkages and LED attracts knowledge from these LED actors with their own different world views. These actors not only interact with their environment to bring about local development but also seek to make sense of it through their interpretation of events and the meanings they draw from these events. Therefore, this study made clear the subjective reality of the LED actors and made sense of their understanding and actions on LED processes.

In the study of rural-urban linkages and LED, the contribution of social capital to the development of the locality through strengthening the linkages between and among local institutions is equally important. Pike et al. (2015) consider that local institutions generally tend to be in a state of constant change. Based on Saunders, Lewis and Thornhill's idea, the constructivist worldview is good to capture this dynamism. These ontological, epistemological and theoretical perspectives, therefore, helped in the understanding of these complex socio-economic interactions among the actors in LED processes.

1.7.3. Research Methods

This study employed a qualitative case study method that involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources (Iacono, Brown & Holtham 2010). The researcher collected primary data related to the

significance of the flows of people, production, finance, and information between Nekemte Town and its hinterlands to the peoples' livelihoods for eight consecutive months (from November 2013 to June 2014). Data related to the conceptualisation of LED from the actors' perspectives were also collected during this time. Qualitative research methods were used because the interactions between LED actors (farmers, traders, small-scale manufacturers, and local authorities) in LED processes, and the conceptualisation of LED require the use of in-depth and fluid measures as opposed to static and explanatory laws to grasp the subjective meanings of social actions. Further, these actors' interactions are dynamic and the knowledge out of the interactions is socially constructed. The actors also have different views of their own on how to conceptualise LED and this is well captured through in-depth interviews.

This study applied an ethnographic research method. Ethnography is a useful method to study social interactions, behaviours, and perceptions that occur within groups, teams, organisations, and communities. Further, the ethnographic method involves explicit interpretation of the meanings and functions of human actions (Reeves, Kuper, & Hodges 2008). This method helped the researcher to describe and explain the nature and drivers of LED within the context in which they occurred by analysing rural-urban linkages. As this study is set to challenge Ethiopia's current sector-based LED approaches which focus only on urban areas, this method enabled the researcher to come up with the conceptualisation of LED processes from a rural-urban linkages point of view.

Case study method has the ability of not only exploring existing theory, but also it can help researcher(s) to challenge an existing theory and provide a source of new research questions (Saunders, Lewis & Thornhill 2009). According to Yin (2008), a case study design should be considered when: (a) the focus of the study is to answer 'how' and 'why' questions; (b) the

researcher wants to cover contextual conditions that are relevant to the phenomenon under study; and (c) the researcher cannot manipulate the behaviour of the research participants. This method is also applicable to economic development studies in which the structure of a given industry or the economy of a city or a region may be investigated making the method appropriate for the study of rural-urban linkages and LED. Case study method is mostly used in explanatory and exploratory research. The method applies multiple data collection techniques such as interview, observation, and documentary analysis (Gillham 2000; Collins 2010) which help to gather rich qualitative data.

Netchain analysis (Lazzarini, Chaddad, & Cook 2001) enabled the analysis and understanding of the interplays between and among key actors in the rural-urban linkages and LED processes where the firms are quite small to a level of one person or one family, and the influence of social relationships on the agro-business is high. IA of a case study (Yin 2013; Woodhill 2010) is used to analyse the influence of local institutions on LED processes and the functional linkages between the different kinds of the local institutions. It also helps to address the question of what sort of local institutions are relevant to LED and why.

1.7.4. Research Design

Considering the diverse range of interplay between participants in LED processes, a total of 51 participants were recruited for this study using purposive and snowball sampling. The key actors in grain flows between the two areas included farm households (30), traders (nine), millers (five), edible oil processors (five), and Development Agents (DAs) (two) in both Nekemte and its surroundings. An expert from the LED office of Nekemte Town was also

consulted. Since the study explores the local perspectives on the drivers of LED processes, a qualitative research design was employed to discover the emic views of the participants. Care was taken to include research participants from different backgrounds and attributes such as farm scale, gender, and education. Supplementary to the primary data, publicly available secondary data from the offices of the government and the LED project in Nekemte Town were reviewed.

This study applied the principle of data saturation and attainment of quality, an approach suggested by (Saunders, Lewis & Thornhill 2009). The sample size in this study does not mathematically represent the total population in the study area. The figure is purposively sampled to provide representative information and valid research conclusions. Adequacy of the sample size in a qualitative research is determined by the principle of theoretical saturation, which refers to the point at which no new concepts emerge from the review of successive data from a heterogeneous sample. In an interview study, it is recommended that 20 to 30 interviews may achieve data saturation (Curry, Nembhard, & Bradley 2009). Further, Kvale (1996) has observed that when the variables of heterogeneity and saturation are the driving forces of a research, 15±10 participants suffice in such studies. The recruitment of the various categories of people with different backgrounds enabled the researcher to develop an understanding of research issues from the perspectives of the various participants in the LED conceptualisation. This eventually led to a triangulation of the information from the different sources and the generation of detailed and rich data and conclusions.

The study is conducted in Uke and Negassa FAs in Guto Gidda district. The participants were selected using snowball sampling technique suggested by Creswell (2012) where the researcher first approached the District's Agriculture Office and discussed the objectives of the study. In

snowballing, the researcher asked the research participants to provide names of firms and other publicly available data. The researcher provided the participants with information about the project and invited them to contact the researcher.

The researcher included different scales of farmer households and traders, and also information from both males and females to minimise the potential bias that might have been introduced. Accordingly, large-scale[1], medium-scale and small-scale farmers were represented from both the FAs and approached. The information that the participants provided to their colleagues include data related to agri-business and LED processes taking place in the study area through face-to-face (if they are in close neighbourhood areas and have social ties), at market places, churches, mosques and/or other gatherings. The participants included farm household heads engaged in the production of maize and niger seed, traders involved in the trading and transporting of the products, owners of mills and edible oil refineries that process the products, government organisations directly or indirectly influencing the relationships and relevant agricultural organisations. These people included both males and females. Concerning the procedure, the researcher asked for their convenient time to arrange the interview session with them. Care was taken to complete data collection according to the available time and finance set in the research plan, and until no new information related to the research problem surfaced.

Both primary and secondary data were used in this study. The primary data were related to the flows of people, production, finance and information between Nekemte Town and its hinterlands. This study sought to examine the nature and strength of rural-urban linkages and

[1]According to the classification of the District's Agriculture Office, on average, large-scale, medium-scale and small-scale farmers own 8 ha, 3 ha and less than 0.5 ha/farmer respectively.

the impacts of the linkages on LED by taking a case study of Nekemte and its hinterlands in Guto Gidda district of Oromia, Ethiopia. The collected data were related to the netchain of maize and niger seed value chains between Nekemte and its surroundings which were used to unpack LED in the context of rural-urban linkages.

A qualitative research design using in-depth semi-structured interview and observation were employed in this study for seven months (from November 2013 to June 2014). In-depth interview was used partly because of its ability to gather information from non-literate research participants (Engelmann & Isiaho 2005) under which majority of the farmers in the study area are categorised. It is a useful tool for collecting information on how the netchain works and why it works that way (Miehlbradt & Jones 2007). The technique also enhances the capture of both the nature and strength of the relationships at the individual level, to map the chain and eventually to address the research questions.

1.7.5. Data Analysis

Data analysis in this study aimed at giving a detailed coverage of understanding of maize and niger seed netchains from the production to the marketing and to the consumption stages and this gives a clear picture of the significance of rural-urban linkages for LED. Different qualitative data analysis techniques were used in line with the specific objectives and research questions of the study. Narrative explanations during interviews were tape-recorded and transcribed later during analysis. These audio-recordings were complemented by written field notes, which included observations of both verbal and non-verbal behaviours as they occurred, and immediate personal reflections about the interview.

Data from the interview and secondary sources were triangulated, converged and analysed using qualitative methods. As Boyatzis (1998) proposes, all the recorded conversations were transcribed verbatim and imported into Nvivo 10 software in which codes were generated from the data, which were later collated to themes to generate a theme 'map'. The themes later became categories for analysis. The theme development was an iterative process as Heath & Cowley (2004) suggest where new themes were generated and others discarded as needed to keep the research objective in focus. After the frequent recording cycles, many themes were clustered into categories of higher order abstractions to make sense in the context of the data. For instance, the theme of 'factors affecting netchain' related to other similar themes of the same order such as 'agro-processing' and 'grain marketing', which were influenced by another theme of 'networks and social capital' to converge to a higher order theme of 'maize and niger seed netchain', which ultimately resulted in higher category of 'netchain and LED'. The units of analysis identified were the various conceptualisations of LED processes and the significance of rural-urban linkages to conceptualise LED. Some of the principles of case study analysis, after Yin (2003), cited in Brown (2008), such as addressing all evidence and major rival interpretations, focusing on the most significant aspect of the case study and employing the researcher's prior knowledge were used to further the analysis.

Netchain analysis was used to understand the flows of resources between Nekemte Town and its hinterlands. A qualitative approach is used in the mapping of the maize and niger seed netchain. According to Bonney et al. (2007); Ahenkora, (2012) and Donovan et al. (2013), this technique helps to explore participants' perceptions and realities leading to a real understanding of the way in which a particular value chain works. Further, to understand the influence of institutions on LED processes, IA was employed because of its relevance to analysis of both the determinants and consequences of institutions and institutional change (Alston 2008; Woodhill

2010). Using IA, this study was able to identify the different kinds of local institutions and how they function and interact, which either positively or negatively impacted LED processes.

1.8. Significance of the Study

The result of the study may have both academic and policy significance. Understanding LED processes from a rural-urban linkages perspective is a recent development approach, and such recent development approaches are highly in need of resources for researchers, policy makers and practitioners focusing on the topic under consideration. Regional or local policy makers in Ethiopia (and of course in other developing and transitional countries) may drain good policy direction to their LED plan that facilitates the synergetic and collaborative linkages between urban and rural areas. Particularly, as Ethiopia is now in a move towards achieving Millennium Development Goals (MDGs) and Growth and Transformation Plan2 (GTF2), the finding of this study is expected to have paramount significance for strategy towards enhancements of the role of urban and rural linkages on LED processes in achieving the plans.

1.9. Validity and Reliability of the Research

Qualitative research, like its quantitative counterpart, has strategies for establishing the authenticity of a study in line with the underlying philosophical assumptions. Validity and reliability (or consistencies) are the two main ways of demonstrating and communicating the rigour of research processes and the trustworthiness of the research findings. There are two forms of validity in research: internal validity (or credibility) dealing with the question of how research findings match the reality and external validity or transferability, which is concerned with whether the findings of one study can be applied to other situations (Roberts, Priest, & Traynor 2006; Merriam 2009). This study used four major strategies for ensuring validity and reliability. These strategies include triangulation, submersion/engagement in the research

situation, researcher's position and peer review. The last strategy can also be named audit trial (Roberts, Priest & Traynor 2006). Furthermore, Merriam (1995, 2014); Onwuegbuzie & Daniel (2003) suggest the use of rich and thick description of data to ensure external validity or transferability of the study.

Triangulation of data is the primary strategy to ensure internal validity and reliability (Baxter & Jack 2008; Merriam 2009). Denzin (1978) proposes four types of triangulation: a) methodological triangulation (the use of multiple methods); b) data triangulation (the use of multiple sources); c) investigator triangulation (the use of multiple observers of the same object); and d) theory triangulation (the use of multiple theories to confirm emerging findings). The applicability of theory triangulation to verify findings is, nonetheless, less common in qualitative research (Merriam 2009).

All methods have their own weaknesses and strengths and to help balance out of the potential weaknesses in each method, methodological triangulation is important (Gray 2014). In this study, as Creswell & Miller (2000) recommend, the use of multiple methods of in-depth interview, observation, and publicly available secondary documents to collect data combat the problem of internal validity. This helped the researcher to crosscheck what the research participants said in the interview against what the researcher observed and the recorded data in the local offices - data triangulation. Further, the research incorporated the views of different people with different backgrounds including farmers, traders, small-scale manufacturers, and local government officials. Following Merriam (2014) suggestion of covering different geographic areas to get more representative research articipants, the study included Negassa and Uke Farmers' Association in Guto Gidda district and the Town of Nekemte.

The theoretical clarification prior to the data collection helped the researcher to identify the tools used in the data collection, the research participants and the data collected to answer the research questions and come up with a credible result. The extended time the researcher spent in the field (from November 2013 to June 2014) and the associated repeated observation of the study areas helped the researcher build trust with research participants, find a gatekeeper to allow access to people and sites, and establish rapport with participants to make the participants comfortable about giving information. Creswell and Miller (2000) suggest that this technique also helped the researcher to collect data until no new information surfaced as the data collection processes continued - data saturation. The credibility of this study was also established by turning to individuals external to the project or external *auditors* to review the study. Each of the five papers (one conceptual paper and four empirical papers) was sent out for external reviews. Equally important, based up on Roberts, Priest, & Traynor (2006) suggestion of the contributions of external reviews and suppervisions, the writing process was constantly reviewed by the supervisory team and face-to-face and Skype meetings (where necessary) were made to discuss the research every fortnight.

External validity is the extent to which research findings can be replicated. Qualitative research can replicate itself if the researcher carefully and thoroughly describes the choices of settings and people in the study; the role and status of the researcher; and the theoretical or analytical constructs used to guide data collection and analysis techniques used in the study (Eisenhart 1988). Creswell & Miller (2000) suggest the use of philosophical orientation where the researcher used constructivist philosophy from where data collection and analysis procedures were derived to contextualise the people and site studied so as to provide as much detail as possible. Further, Denzin & Lincoln (2005) propose the provision of thick descriptions and

quotes in the findings, supplemented by graphic descriptions, which this study employed to optimised its reliability.

1.10. Thesis Sstructure

The thesis comprises seven chapters: Chapter One discusses the background of the problem under investigation, the methodology applied to investigate and a detailed description of the study areas. Chapter Two is a theoretical manuscript while chapters three through six are empirical papers organised into chapters to form a coherent piece of academic research. The last chapter, chapter seven, concludes the thesis.

The theoretical paper on *Netchain- An analytical approach to Local Economic Development* is presented in chapter two of the thesis. The paper discusses the different analytical approaches used in the value chain and development literature. It identifies four key analytical tools: *value chain*, *supply chain*, *networks*, and *netchain*. Value chain and supply chain are grouped under vertical linkages which help to understand the relationships between firms or groups of firms engaged in sequential stages of production. They focus on the upstream integration of suppliers and producers and downstream links of creating value in the eyes of the customer. These linkages help in optimising production, reducing transaction costs and appropriation of property right. Network analyses the horizontal relationships between firms belonging to a particular industry or groups of industries involving intricate, multifaceted, and durable relationships. It highlights the nature and extent of the inter-firm/actor relationships that bind sets of firms/actors into larger economic groups. Networks between and among value chain actors help the development of mutual understanding and trust among them and this could offset potential internal conflict and opportunistic behaviour.

The linkages between urban and rural areas are multifaceted which is better captured with a multidimensional analytical approach. Different factors affect the production, marketing, processing, and consumption of products that in turn strongly influence the nature of LED processes. Chain studies (value chain and supply chain) need to be integrated to networks to capture the full picture of rural-urban linkages and LED processes. This paper concludes that the netchain approach is a useful way to analyse rural-urban linkages and LED as it made possible the understanding of the impacts of the linkages on LED processes when the firms are quite small to a level of one person or one family (detail is presented in Chapter Two).

While the technique of analysis is presented in paper one (Chapter Two), the next paper presented in Chapter Three empirically conceptualises LED from the local development actors' perspectives. This paper addresses the first research question about how different actors understand LED processes from their perspectives. An ethnographic approach is used to collect primary data from farmers, traders, processors and local officials. By systematically incorporating the primary data with secondary data, this paper unpacks the concept of LED. It illustrates the concept of LED by exploring local views, which is triangulated with views from literature, the reality 'on the ground' and the current Ethiopian government LED policy. The paper concludes that understanding rural-urban linkages are a prerequisite for better understanding and implementation of LED processes (for detail see Chapter Three).

In Chapter Four the second empirical paper entitled 'Netchain analysis of the maize and niger seed value chains and LED in Nekemte and its hinterlands, Oromia, Ethiopia' is presented. This paper responds to three research questions about the direction, scale, and nature of flows of grains, people and information between urban and rural areas; the major factor affecting the

value chains; and the implications of rural-urban linkages for LED in the study area. It utilises the netchain analytical framework discussed in Chapter Two. The paper established that inefficient agricultural practices; high costs and limited accessibility of inputs; and lack of credit facilities negatively affected the production and processing, and thence the netchain of agricultural products in the study area. The scarcity of farmland, poor infrastructure, and lack of reliable market information has also identified another cause for the weak rural-urban linkages (see Chapter Four).

Chapter Five presents results from the third empirical paper discussing local institutions and LED in answer to the research question about the nature and forms of rural-urban linkages. In Chapter Four, empirical paper two identified the absence of trust particularly among the farmers and traders as emanating from poor and unreliable market information. This third empirical paper details this problem by identifying the different types of local institutions in the study area and how they function in the LED to tackle the problem. It employed IA of a case study to assess the influences of institutions on LED and the relationship between the local institutions in the study area. It observed that most of the local actors prefer to practise indigenous institutions rather than government institutions. Indigenous institutions play significant socio-economic roles which support their livelihoods because they are culturally embedded and universally accepted practices based on their needs (see chapter five).

The conceptualisation of LED in Chapter Three leads to empirically analysing the nature and forms of rural-urban linkages in Chapter Four and the roles of the local institutions in LED processes in Chapter Five. Identification of the real problem, in turn, leads to how to tackle the problem in Chapter Six under the topic of‘Bridging the rural-urban divide for LED’. This paper

addresses the research question of how to foster rural-urban linkages for better development of the locality in the study area. The result of this paper revealed that despite the enabling policy of the government to facilitate rural-urban linkages, the linkages remain weak and this has consequences for the functioning of local economies. The ad hoc mutual interdependencies between the people living in urban and rural areas through production-consumption linkages are unable to generate effective and strong resource cycles between the two (see Chapter Six).

All the papers are stand-alone and they recommend how to solve the problems raised in all the previous chapters. The study recommends implementation of a strong policy framework to facilitate the flows of resources between Nekemte and its surroundings for a strong local economy. Enhancing production and productivity (by facilitating access of farmers to affordable modern agricultural inputs, extension, and favourable rural microfinance), development of innovative marketing relationships between value chain actors, and provision of basic infrastructure could strengthen the urban-rural linkages, help bridge the existing divide, and promote mutually beneficial feedback loops to generate a stronger local economy. Systematically strengthening functional linkages between indigenous and government local institutions through adopting an institutionally diverse approach that avoids or reduces competition and duplications and encourages synergic collaboration would also help to achieve positive LED outcomes.

Chapter 2 *Netchain*- An Analytical Approach to Local Economic Development

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Supervisor Contributions

Robyn Eversole: (Principal Supervisor)

Provided supervisory advice and assisted in editing the manuscript.

Laurie Bonney: (Secondary Supervisor)

Janelle Allison: (Secondary Supervisor)

Provided supervisory advice and assisted in editing the manuscript.

This Chapter is an exact copy of the journal publication referred to above.

1. Introduction

Traditionally rural and urban development processes have often been theorised separately, and local development policy has often had an 'urban bias' or a 'rural bias'. This has been reflected in the division of policies along spatial and sectoral lines. Urban planners usually focus on urban nodes and giving inadequate attention to agricultural or rural-led development, while rural development planners tend to disregard urban centres and define rural areas as consisting only of villages and their agricultural land which adversely affected the development of the two spatial units (Tacoli 1998a). Such an approach has not only undermined the potential of urban-rural linkages for poverty reduction and mutual developments but also has created disparities between the two geographic units in the standards of living. Yet this old orthodoxy of a discrete and dichotomous approach no longer accords with reality, considering the complementary functions and flows of people, capital, goods and services, employment, information and technology between the two areas (Okpala 2003). Because migration, information, consumption, production, and capital flows transcend a strictly rural-urban divide and rely on both rural-based and urban-based resources, local development strategies should reflect this dynamic relationship.

Local economic development (LED) can best be realised if all stakeholders or actors (including the local government, communities and their organisations, non-governmental organisations [NGOs] and private enterprises among others) in the sector work together. One cooperative method is the utilisation of linkages and networks. Communities and their organisations, often framed by local tradition and custom and also by local or national government legislation, can facilitate sharing of information and experiences and can contribute to learning among the members. Helmsing (2003) argues that local producers and their associations are key actors in

enterprise development, which develops into inter-firm cooperation and joint action towards better LED.

A wide range of analytical approaches: *Value Chain* (Porter 1985; Faße, Grote & Winter 2009; Trienekens 2011); *Supply Chain* (van der Vorst 2000; Carbone, Glli & Sorrentino 2009); *Networks,* (Powell 1990; Murdoch 2000; de Nooy, Mrvar & Batagelj 2005), and *Netchain* (Lazzarini, Chaddad & Cook 2001; Perez and Martinez 2007) has been developed and used for the analysis of economic development by scholars affiliated to different disciplines such as sociology, economic and organisational science, agribusiness and human geography.

Each of the four analytical concepts is illustrated in the following sections in line with its weaknesses and strengths in analysing LED. After presenting the four concepts, I would argue that *netchain* is the best approach to analyse rural-urban linkages and LED. For the conceptual clarification of netchain, local agri-business involving maize and niger seed products, and its implications to LED is used. In this agri-business sector, the interplay between and among farmers, traders, and processors (small-scale manufacturers) is scrutinised.

1.1.Value Chain Analysis

Value chain, alongside similar approaches like the *'filiére'* - from French origin, and the commodity chain - from world systems theory (Raikes, Friis Jensen & Ponte 2000), was first brought up by Porter (1985) in his study of competitive advantage of firms in the 1970s and 1980s, reflecting the value adding character of business processes within borders of the firms. A value chain is defined as the linked set of value-creating activities all the way from basic raw

material sources for component suppliers through to the ultimate end-use product delivered into the final customers' hands (Shank 1989). The approach of value chain focuses on primary processes, that is, transformation and transaction processes in and across vertically related companies (Trienekens 2011) and is a purely linear relationship involving actors in the designing, producing, marketing and distributing of a good or service. Value chain is also designed to assist corporate executives to identify the'value' embodied in those elements and to decide how that value can be enhanced in the interests of building competitive advantage in the firm sector (Porter 1985).

The value chain approach is often essential to successful LED in that micro and small-scale enterprise and smallholder farmers would eventually benefit from the competitive advantage of the industries. Farmers are linked to consumers' needs, working closely with suppliers and processors to produce the specific goods that consumers demand. Similarly, through flows of information and products, consumers are linked to the needs of farmers. Under this approach, and through continuous innovation, the returns to farmers can be increased and livelihoods enhanced. It is argued that taking the value chain approach to economic development involves addressing the major constraints and opportunities that a business or firm faces, which could include activities such as facilitating access to cheaper or better inputs, strengthening the delivery of business and financial services, increasing access to higher-value markets or simplifying export licensing (Dempsey & Campbell 2006).

Value chain analysis is unable to analyse the overall linkages and networks among firms. Most of the arguments with the limitation of value chain analysis come from its interest in vertical linkages whilst failing to capture horizontal linkages. Vertical linkages are relationships between a firm and its buyers and suppliers and is concerned with how a firm's internal value

chain is related to those of its buyers and suppliers (Hergert & Morris 1989; Dekker 2003). According to Choudhary, apart from buying and selling, vertical linkages represent channel for non-financial transactions such as learning, information, technical, financial and business services from one firm to another along the chain, which are important elements of buyer-seller relationships and are central to sustained value chain competitiveness (Choudhary 2008). These kinds of linkages represent firms at different stages of the production chain or in the same markets that form an association to engage in joint marketing or share information. Horizontal linkages on the other hand represent relationships (which can be formal or informal) among firms performing similar functions. Such linkages are made up of firms that share similar technology or service needs, whether or not they are in the same product chain. Horizontal linkages can reduce transaction costs and can help small firms to generate economies of scale (Campbell 2008).

According to Peppard & Rylander (2006), strategists use the value chain to analyse the firm and its major competitors and to identify gaps between firm performance and a competitor's performance so that they can make and implement plans to close the gaps identified. Accordingly, the ultimate strategy is to position a firm in a right place in the chain. However, these old linear models do not take into account the nature of alliances, competitors, complements and other members in business networks.

Daaboul, Castagna & Bernard (2012) point out four limitations of value chain analysis. The first one is related to its limit to the financial dimension, where business value is equal to the turnover from which the costs of activities are deducted. Second, they argue that the activities of values in the value chain are structured sequentially and in an orderly manner. Third, the

interactions between different activities and the effect of these interactions on the value generated are not considered because of the unidirectional linear approach of the value chain. Lastly, due to this linear approach, the value chain analysis fails to incorporate feedback that results from the interaction of the value chain with external parties.

1.2. Supply Chain Analysis

According to Lazzarini, Chaddad & Cook (2001), supply chain analysis (SCA) focuses broadly on successive stages of value creation and capture in a vertically organised set of firms. They identify three core values in supply chain analysis: optimization of production and operations, reduction of operation costs, and appropriation of property right. According to Simchi-Levi et al (2000), cited in Fischer & Hartmann (2010), in supply chain analysis, vertical interdependencies are required for a systemic understanding of resource allocation and information flow between firms engaged in the sequential stage of production. It seeks the cooperation of all actors in the firm sector for supplying higher quality products in order to achieve greater process efficiency and innovativeness and offer greater value to the final consumer (Perez & Martinez 2007)

In an attempt to create business relationships along the production and distribution chain, an integrative approach of supply chain management (SCM) was developed. However, Lazzarini, Chaddad, & Cook (2001) argue that supply chain analysis is not well equipped to discuss relationships among suppliers because it focuses on elements related to vertical transactions such as logistic management or the design of contractual arrangements between buyers and suppliers.

1.2.1. Differences and Similarities Between Value Chain and Supply Chain Analyses

Value chain analysis and supply chain analysis have similarities with slight differences in focus. Supply chain and value chain overlay the same network of firms interacting to provide goods and services. Both are complementary views of an extended enterprise with integrated business processes enabling the flow of products and services in one direction, and the flow of values as represented by demand and cash flow in the other direction (Ramsay 2005). The primary difference between supply chain and value chain is that supply chain usually focuses upstream on integrating supplier and producer processes, improving efficiency and reducing waste while value chain focuses downstream on creating value in the eyes of the customer. However, values can sometimes be thought to operate in both directions. This happens when, for instance, suppliers derive value from the financial resources and payment terms that their customers provide, and the customers, in turn derive value from the delivered products and services (Feller, Shunk & Callarman 2006).

From the accounts given earlier, no matter how some authors (Dekker 2003) tried to use value chain analysis to study interfirm relationships in the UK, recent accounts indicate negligible attention of value chain and supply chain to horizontal linkages. Henderson et al. (2002) clearly assert the major weaknesses of the 'chain' approach in that it conceptualises production and distribution processes as being essentially vertical and linear while the reality is that such processes are highly complex network structures involving horizontal, vertical and diagonal linkages with multidimensional and multi-layered frameworks of economic activity. Horizontal linkages could facilitate production and marketing efficiencies and enable the flow of information, learning, resources and benefits between and among firms. These elements, which seem to be missing in both value chain and supply chain analyses, are crucial in LED processes.

1.3. Network Analysis

Rooted in sociological science, the concept of networks also appeared in 1970s, which later received fundamental support from economics, economic geography, mathematics and computational sciences, and helped to construct a solid and structured framework to analyse social networks and relationships (Smith et al. 2002; Talamini & Ferreira 2010). Network analysis is concerned with horizontal relationships between firms belonging to a particular industry or groups of industries involving intricate, multifaceted, and durable relationships (Powell 1990) and highlights the nature and extent of the inter-firm relationships that bind sets of firms into larger economic groups (Sturgeon 2001). These socio-economic relationships include supplier relationships, resource flows, trade association memberships, interlocking directorates, relationships among individual employees, and prior strategic alliances (Gulati 1998). Networks between firms influence LED processes. Economic development indicators such as the percentage of sales, exports, number of employees, and investment can specify the importance of network activity between firms (Alderete & Bacic 2012).

A combination of horizontal linkages and vertical linkages need to be considered for effective analysis of economic interaction between and among firms to bring about LED. Farina & Zylbersztajn (2003) argue that network analysis is concerned with the total of actors within one industry and/or between related industries, which can potentially work together to add value to customers. Chain analysis (value chain and supply chain) on the other hand is interested in vertically linkages that add value to customers. Therefore, they argue that combining both the analytical frameworks together is crucial to understand LED processes.

1.4. Netchain Analysis

Netchain is a new concept developed by Lazzarini, Chaddad & Cook (2001) combining vertical and horizontal ties in the firm sectors. They define netchain as a set of networks comprising horizontal ties between firms within a particular industry or group, such that these networks are sequentially arranged based on vertical ties (transaction between layers) and, mapping how agents in each layer are related to each other and to agents in other layers. The authors integrate chain analysess and network analysis by recognising that complex inter-organisational settings embody several types of interdependencies which are associated with distinct sources of value (strategic variables yielding economic rents) and coordination mechanisms (stability of inter-organisational collaboration).

Chaddad et al. (2009) identify three core sources of value in supply chain analysis. These are optimization of production and operations, reduction of transaction costs, and appropriation of property rights. They also emphasise three core concepts of value in network analysis namely social structure, learning and network externalities, and suggest combining all three for the simultaneous study of horizontal and vertical linkages. They further assert that supply chain analysis focuses on coordination mechanisms involving some sort of plan or discretionary managerial action, which corresponds to sequential interdependence whereas network analysis has primarily dealt with either pooled or reciprocal interdependencies. Pooled interdependency is associated with network externalities while in reciprocal interdependency the input of one agent is output for another, and vice versa. Netchain analysis integrates the two analytical concepts considering simultaneously all types of interdependencies that occur in a given organisational setting so that crucial elements related to the different kinds of interdependencies that may exist in relationships are not overlooked.

The concepts of chains and networks have been used almost exclusively to discuss interrelations of firms either vertically or horizontally such as supply chain analysis (Christopher 2010), value chain analysis (Trienekens 2011) and network analysis (Powell 1990). Chain analysis is largely applied in vertical linkages or relationships and does not appear to be applied in horizontal inter-firm relationships. Nonetheless, there are few exceptions, for instance Dekker (2003) attempted to apply chain analysis in the study of interfirm relationships in the UK. The concept of netchain, by contrast, focuses on the simultaneous analysis of both vertical and horizontal linkages of firms and does not appear to be sectoral in focus (Lazzarini, Chaddad & Cook (2001), and is, therefore, relevant in the study of rural-urban linkages and LED. The netchain in this paper constitutes *vertical linkages* (buyer-supplier relationships), *horizontal linkages* (inter-firm/organisational and interpersonal collaborations), *netchain governance, and external factors* to the netchain.

1.5. Vertical Linkages

Vertical linkages are better analysed through value chain and supply chain studies (Lazzarini, Chaddad & Cook 2001; Talamini & Ferreira 2010). It is argued that vertical linkages contribute to economic development by optimising production and operation, reducing transaction costs and appropriation of property right (Lazzarini, Chaddad & Cook 2001). As such, farmers, traders and processors; and the role that each of them plays in the agro-business of maze and niger seed are used in this netchain analysis. This helps to assess the relationships at both group and firm levels and the conditions of social capital (trust) as a governing body in the society. Trust entails a prediction about the behaviour of an independent actor and personal interaction generates information about the trustworthiness of other actors that is relatively inexpensive and reliable (Putnam 1993).

1.6. Horizontal Linkages

Horizontal ties between and among firms and individuals in a network are important for LED. The concept of analysing a network was initially associated with sociologists, but economists and strategy scholars have recently applied it in areas of industry to explain economic organisation and performance (Lazzarini, Chaddad & Cook 2001). A network focuses on the ties among people, groups of people or organisations and countries (de Nooy, Mrvar, & Batagelj 2005). This versatility of network makes possible to analyse the relationship with a different lens, from a macro-level (countries, organisations and firm) to a micro-level (people and individuals), (Talamini & Ferreira 2010). Lazzarini, Chaddad & Cook (2001) argue that networks between and among the farmers, traders, and processors will help the development of mutual understanding and trust among them and this could offset potential internal conflict and opportunistic behaviour. Further, they point out that the significance of the networks is not only observed at an individual level, but it can also create conditions for the emergence of intra-industry coalitions of firms that negotiate better terms of trade with firms in other industries or reduce competitions within their own industry

Horizontal integration of small-scale producers (like farmers cooperatives in this case) into second-tier cooperative businesses (traders) leads to the development of extensive business networks, and these cooperatives could also establish cooperative groups and/or inter-cooperative agreements with other firms (processors) (Anne Tallontire et al. 2011). To take full advantage of the interdependence, however, incorporating vertical linkages of the firms in the netchain is highly important.

1.7. External Factors to the Netchain

The external factors influencing the netchain in this study area include information communication technology (ICT), transport system, and uncertainties related to the natural environment and business environment. Mobile technology and radio are the major media used in rural areas of developing countries to get information mostly related to the price of products. Traders and processors also depend on this media to communicate about their businesses. Prices set at the central market are also broadcasted using radio, to which some farmers have access. Infrastructures (mainly accessibility, for rural households to a good road network) greatly influence the flow of production to and from one centre (production) to the other (consumption), and eventually affect the livelihood of the locality.

The concept of uncertainty is frequently raised in the supply chain management literature (Davis 1993; van der Vorst 2000;; Anne Tallontire et al. 2011). van der Vorst (2000) defines uncertainty as decision-making situations (in the supply chain) in which the decision-maker lacks effective control capabilities or is unable to accurately predict the impact of possible controlling actions on system behaviour. According to Davis (1993), a company can advance by understanding the relative impacts of different sources of uncertainty in the system and by then working to reduce or avoid the impact they may have. To this effect, he recommends measuring the indirect effect of the uncertainty on the upstream and downstream nodes in the supply chain. Uncertainties associated with supply can be grouped into product quality uncertainty, product quantity uncertainty, and time fluctuation, which are related to supply, demand and distribution, process and planning, and control (van der Vorst 2000).

In addition, Tallontire et al. (2011) also mention agricultural production seasonality and product perishability (in the fresh product sector) which increases uncertainty. To overcome the

challenges of market orientation that producers face such as efficiency, innovation and quality, the producer sector has to have clear market information. Another uncertainty is behavioural uncertainty which is associated with the level of trust among partners to control business transactions (Tallontire et al. 2011). Those environmental and business uncertainties, coupled with accessibility of information technology (IT) and physical infrastructure (roads) have, therefore, strong influences on the production, processing and trading of agricultural products.

1.8. Netchain Governance

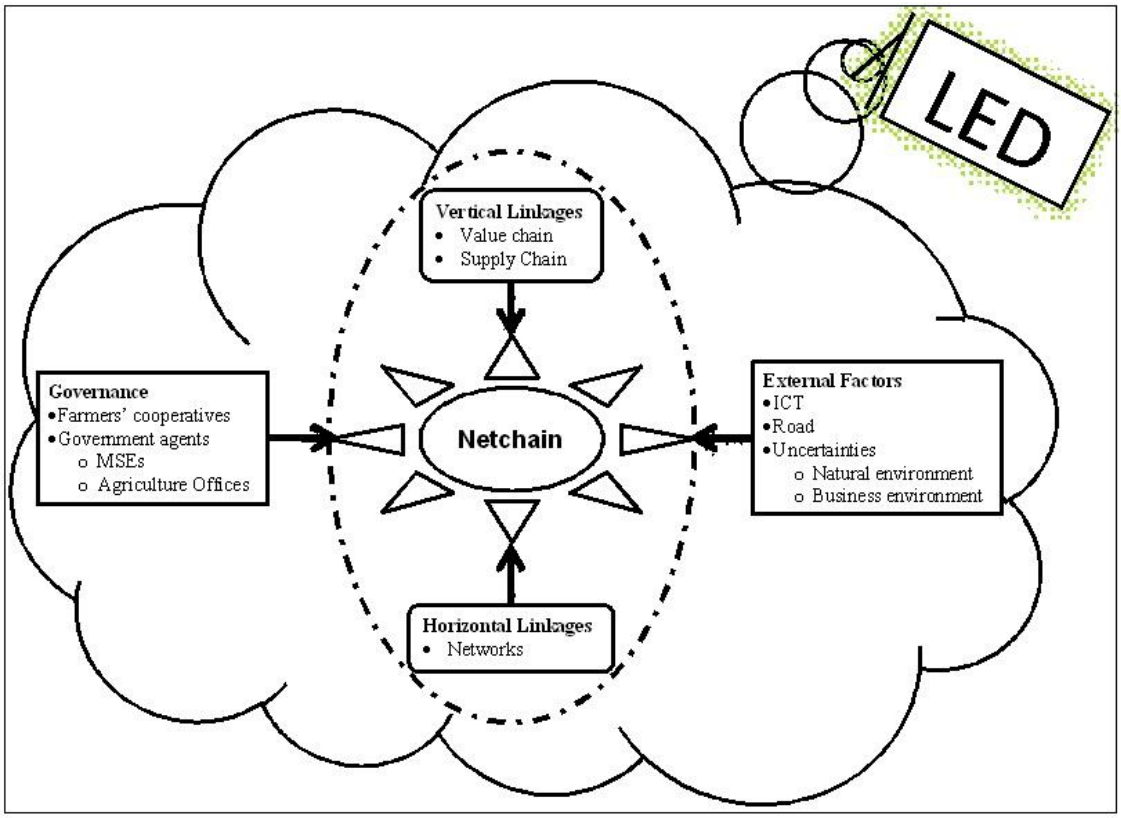
Talamini and Ferreira (2010) discuss the significance of governance based on trust for the improvement of quality and the reduction of transaction costs among firms and organisations emphasising the role of individuals in the improvement of trust-based relationships. Supplementary to this idea, Bonus (1986) refers to local cooperatives as a 'social group' which was further elaborated on by Lazzarini, Chaddad & Cook (2001), arguing that the formation of reciprocal interdependencies among farmers in local cooperatives is explained as a consequence of intimate personal knowledge and strong social ties, where members are likely to employ joint decision-making and problem-solving to coordinate their activities. Based on this principle, farmers (being members of Farmers' Associations or Cooperatives) may negotiate prices for their products directly with the traders so that they are not discriminated against by traders' and intermediaries' price decisions. These farmers' local Cooperatives may also provide agricultural inputs (like seeds and fertilizers) in cooperation with district agricultural offices to the member farmers at fair prices.

Government agencies have a facilitating role in this netchain where they provide agricultural inputs to the farmers, training and supervision to the processors, and regulate prices if there is

any price escalation by the traders and processors. This regulation may include setting the range of prices and importing products that are in serious shortage in domestic markets.

As a conclusion to this framework, vertical and horizontal integrations of individuals and firms or groups of firms, that are facilitated by communication infrastructures like information communication, good transport links, will strengthen interdependencies and social capital among the members of the linkages and contribute to LED processes (see Figure 2.1). Within this context, as opposed to only concentrating in the analysis of vertical relationships between firms, this paper considers the interdependence of firms both vertically and horizontally using the analytical concept of netchain to study LED processes.

Figure 2.1: Maize and Niger seed Netchain Conceptual Framework.



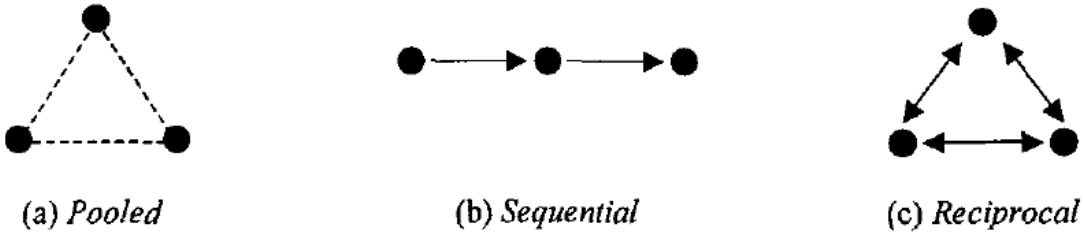
Source: Developed by the Researcher

2. Netchain Analysis Conceptualised

Lazzarini, Chaddad, & Cook (2001) used the seminal categorization of organisational interdependencies developed by Thompson (1967) who initially used the concepts to study interdependencies within organisations. They used this work as a tool to develop the concept of netchain and analyse different types of inter-organisational interdependencies observed in supply chain analysis and network analysis arguing that these two concepts are crucial in understanding complex inter-organisational relationships and capturing significant element of the relationships.

O'Toole & Montjoy (1984) identified three types of inter-organisational interdependencies: *pooled, sequential, and reciprocal* interdependencies (O'Toole Jr & Montjoy 1984). Pooled interdependence occurs when agencies involved in organisational activities are asked to provide their own contributions but do not have to deal with each other to do so. This typology is the simplest occurring when each individual in a group makes a discrete and well-defined contribution to a given task. In the sequential interdependence, a series of structural tasks, wherein the output of one unit is the input for the other, is followed. This means that one entity cannot start producing its output until it has receives the output of the other. Lastly, reciprocal interdependence involves a simultaneous ongoing relationship between parties in which each agent's input is dependent on the other's output, and vice versa (see Figure 2.2). The complexity of the level of interdependence increases across a continuum ranging from pooled at one end to reciprocal at the other end (Lazzarini, Chaddad & Cook 2001).

Figure 2. 2: Representation of Types of Interdependencies.



Source: Lazzarini Chaddad & Cook, 2001

Based on this typology, they posit that supply chain analysis (SCA) focuses on sequential interdependence, whereas the rest, pooled and reciprocal interdependencies are represented in network analysis (NA).

Other point put forward by the advocates of netchain analysis is the influence of organisational hierarchies (which they call *macroheirarchies*) and IT in the netchain. They define macrohierarchies as hierarchies involving organisations such as farmers' cooperatives in which the organisations jointly coordinate their activities through multiple layers of ownership. IT enables inter-organisational collaborations in a netchain because it recognises the distinct sources of interdependencies involved in the netchain which leads to distinct sources of value and coordination mechanisms (Lazzarini, Chaddad & Cook 2001). In applying the netchain analysis to study maize and niger seed production chain, the three types of relationships between and among actors of the chain (pooled, sequential, and reciprocal relationships) can be identified.

In illustration in Figure 2.3, sequential interdependencies are represented by single-headed arrows, while reciprocal interdependencies are depicted by double-headed arrows. IT induces horizontal pooled interdependence among both buyers and suppliers and is depicted in dashed

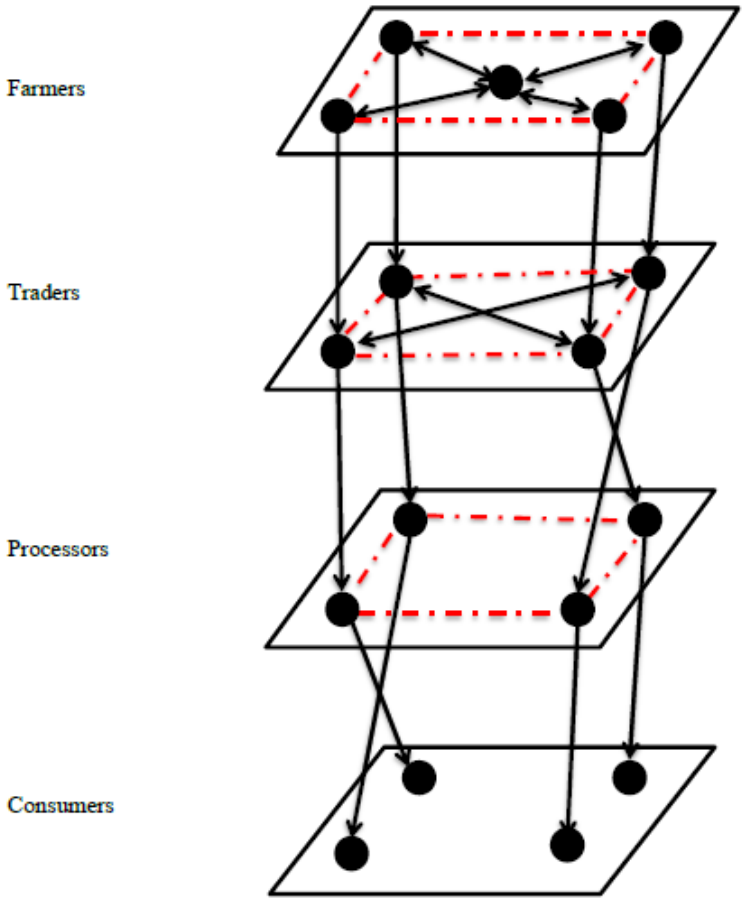
lines. Both products (maze and niger seed) are produced by farmers, sold to traders and eventually processed to produce maize flour and edible oil by the processors to be ready for consumption. This clearly shows *sequential* interdependencies where direct relationships between firms are organised serially and the farmers output is the traders input and traders output is the processors input. Nonetheless, in terms of the flow of information, a reciprocal relationship is observed in the sense that information related to production marketing flows from farmers to the traders and vice versa (Lazzarini, Chaddad & Cook 2001). The influence of IT, particularly the mobile telephones, has facilitated farmers' communication with other layers of the netchain and this strengthens the sequential interdependence of the farmers with the rest of the netchain (Cleary 2009).

Relationships between farmers themselves signify *reciprocal* interdependence because of the influence of local groupings and local cooperative, where farmers have a regular discussions on how to increase production, share experiences with each other, and thence, develop strong ties among themselves leading to knowledge co-specialisation (Lazzarini, Chaddad & Cook 2001). Traders also a display *reciprocal* relationship at the trader layer because they have informal agreements related to areas from which each of them will limit their procurement activities where social norms and strong social ties may regulate their business behaviour. In this kind of interdependence, the farmers exist as a small cluster where social norms and ties may regulate the business behaviour (Cleary 2009).

Processors display a *pooled* relationship at the processors layer as they perform their activities independently with a sparse and indirect interaction. But there is a strong social tie within the members of the layer through indigenous local social institutions. Outside this business, the processors have strong social relations with all layers in the netchain through their local

indigenous institutions such as *Afooshaa* - a traditional social institution in Oromia region of Ethiopia with the purpose of supporting each other during difficult times. This association, found in all parts of the society, sometimes has an economic dimension, where the members support the poor or those who are unable to cultivate and harvest. A well-established association can change pooled interdependence to reciprocal interdependence if there is knowledge exchange among the suppliers. In pooled interdependence, agents are more likely to have diverse knowledge and resource that can be brought to the network because of the sparse and weak ties between them.

Figure 2.3: Netchain Representations of Maize and Niger seed.



Source: Adapted from Lazzarini, et al 2001

However, often, in developing countries, the establishment of formal organisations or cooperatives is not a remedy for successful marketing strategy. According to Lele (1981), a successful marketing strategy requires not necessarily creating formal cooperative structures but finding ways for removing impediments to market intelligence exchange and creating adequate infrastructure to support producers. Informal structures of local institutions are more significant (though not always) particularly in playing an intermediary role. According to D'Haese et al. (2007), cited in Cleary (2009), local institutions are not built on formal criteria of decision-making and asset but are tied together in social networks contributing to the common goal.

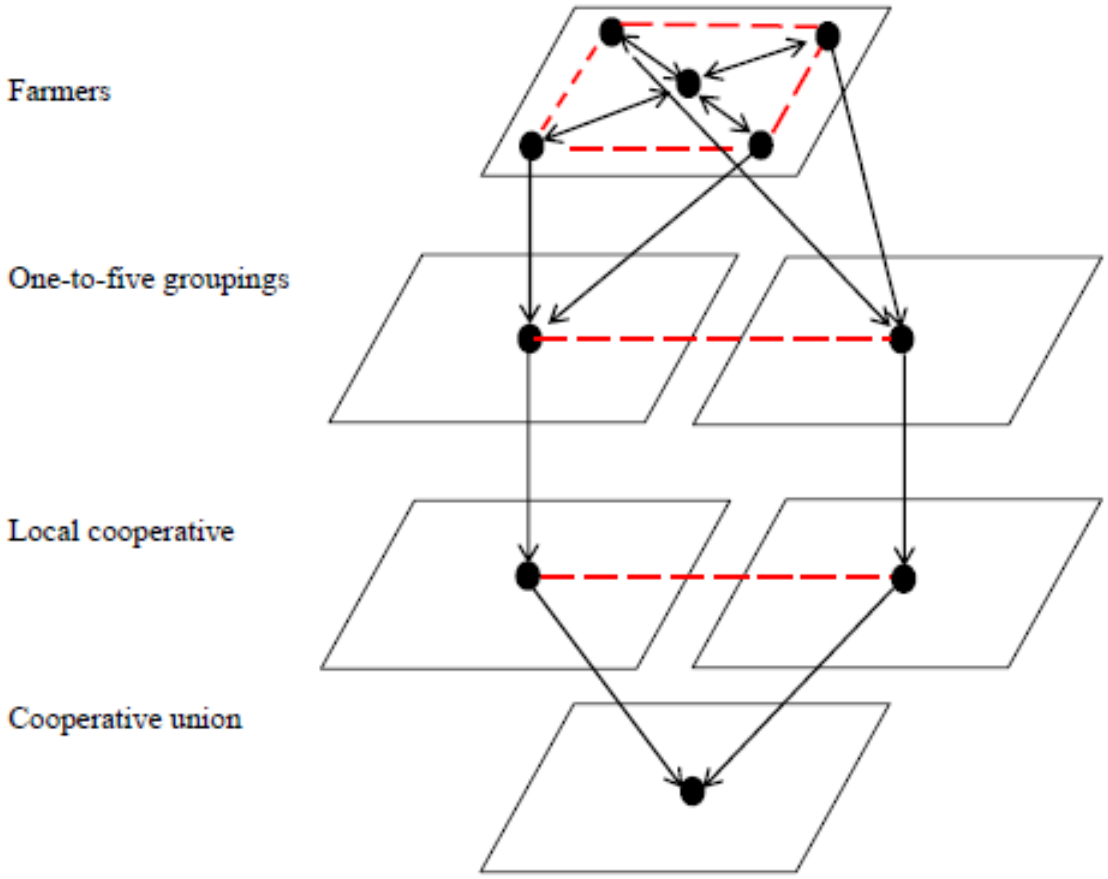
Another important point in netchain analysis is the concept of *microhierarchy*. This is defined as organisations that jointly coordinate some of their activities through multiple layers of ownership (Lazzarini, Chaddad & Cook 2001). In local agro-business activity, farmers' cooperatives have hierarchies ranging from local to zone microheirarchies. The role of cooperatives in rural finance is as crucial as it is in agricultural marketing. Cooperatives have an important function not only in facilitating services rendered by financial institutions but also in filling any gaps that commercial or rural banks are unable to address (FDRE 2003).

There are two kinds of institution in Ethiopia. The first one is the indigenous institution wherein people organise themselves into groups based on their interests and social affiliations. This institution is purely interest-based and people support each other, for example, in times of difficulty, such as when mourning, or at ceremonies like weddings. This support goes to individual members in the institution. The other one is the government institution. The government established its administrative tires starting from federal to regional, zonal, district

and then to Farmers' Association (FA) levels. Other institutions under the FA include Gooxii (local zone), *Garee* (Brigade) and *tokko-shanee* (having a group of five households), which are members of a higher order team (*Gooxii*) performing activities organizing community-level collective action assuring repayment of fertilizer loans, and promoting collaboration with extension agents on behalf of the government system. This also has a precondition of 'development', but here there is an obligation for a man/woman to be a member, and for them to contribute his/her parts. Activities under this institution are government development projects such as road construction, building schools, natural resource conservation and so on.

In a government institution, the group members have regular meetings to discuss issues related to production and to share best practice by visiting the'successful model' farms through a field visit to the member's farmland. In the federated agricultural cooperative, patrons (farmers) are members of the *one-to-five 'development' groups.* The *one-to-five 'development' groups* are members in local farmer cooperative. The local farmer cooperative may be linked to a zone cooperative – usually called cooperative union representing federated agricultural cooperatives structured by means of sequential layers of ownership. Since the patrons (farmers) 'own and control' the cooperatives, the vertical ties between subsequent layers of the federated cooperative structure (Figure 2.4) represent both a transaction and ownership relationship.

Figure 2.4: Federated Cooperative Structure of Maize and Niger seed Netchain.



Source: Adapted from Lazzarini, et al 2001

Cooperatives at some point purchase products during a season of surplus and store these to sell back to farmers during a season of deficit so that individual farmers benefit from these and share the benefits of membership of the association. Agricultural inputs (mainly fertilizers and improved seeds) are supplied through the cooperatives in which the farmers may get a loan to purchase the inputs which they repay after production and sale. This may not generate better income for the farmers because they are forced to sell their products during peak production season to repay the loan. Grain price during this peak season is low. In this case, multiple sequential interdependencies are observed wherein the farmers buy the agricultural inputs from the cooperatives and sell their products on to the same (Lazzarini, Chaddad, & Cook 2001). Local cooperatives may also have horizontal relationships when they share good practices. This

share of experience is usually facilitated by the local government to build the capacity of the cooperatives. As opposed to the case in the context of the framework of Lazzarini, Chaddad, & Cook (2001), in this case, farmers rarely are members of more than one local cooperative except in the case of social institutions.

3. Conclusion

The issue of LED is currently one of the top priorities of the development agenda. The contemporary development reality shows that there is an urgent need to develop policy and plans to incorporate urban and rural areas into the LED process, as these two areas are inseparable. Urban areas cannot stand alone without their rural counterparts. Urban residents are strongly dependent on the rural products for their livelihoods. To survive, a rural population needs to have semi-processed or processed products from urban areas.

Recognition of the importance of the interrelationships by itself is not sufficient. There needs to be a framework of action that formally links the two areas to take full advantage of the synergies. Vertical linkages help in optimising production, reducing transaction costs and appropriation of property rights. Relationships between firms or groups of firms engaged in sequential stages of production are best captured using supply chain analysis and value chain analysis. While supply chain usually focuses on the upstream integration of suppliers and producers, value chain emphasises downstream links of creating value in the eyes of the customer. Considering vertical linkages only would result in the loss of the advantages from the horizontal linkages and vice versa. Horizontal ties between and among firms and individuals in a network are important for LED. Networks between and among the farmers, traders, and processors will help to develop of mutual understanding and trust.

A netchain (vertical and horizontal integrations) of individuals and firms or groups of firms, facilitated by communicative infrastructure and governance, will strengthen interdependencies and social capital among the members of the linkages and contribute to LED. Netchain has the capacity to analyse both the horizontal and vertical linkages between firms or groups of firms in the LED processes.

Chapter 3 Unpacking Local Economic Development: A Case Study from Nekemte Town and its Hinterlands, Oromia, Ethiopia

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1. Introduction

Local economic development (LED) has recently become one of the major contemporary development approaches in developing countries. The concept of LED is defined as a bottom-up, territorial, decentralised (Rodriguez-Pose 2008; Rogerson 2009) and participatory approach to stimulate the local economy using locally available resources (Trah 2004; ILO 2006). Further, Polèse (1985) conceptualises LED as locally induced economic growth operating in a free market economy where endogenous or local factors play a principal role.

Scholars, nonetheless, emphasise the absence of a clearly defined theoretical model for LED as people and agencies have their own local reality by which they understand the concept (Rogerson & Rogerson 2010), and this makes a generalised approach complex. Every Town, city or community has unique local conditions that either help or hinder the basis for designing and implementing LED strategies. In a similar fashion, in Ethiopia, the conceptualization of LED is unclear. In theory, the current development policy of the country recognizes the significance of rural-urban linkages for the development of the locality (MoUD 2009). Practically, however, sectoral development policies are implemented that reinforce a rural-urban dichotomy. This policy approach not only hindered sustainable LED processes but also resulted in a misconception of LED.

This article explores these various conceptualisations of LED from different perspectives, derived from the literature, Ethiopian LED policy, and local people, using Nekemte and its hinterlands in Oromia region, Ethiopia as a case study. The study is aimed at exploring the drivers of LED processes from local economic actors' point of view. The data in this paper show that the flows of resources (people and production) and information between Nekemte

and its hinterlands comprise a system in which LED processes take place along the rural-urban linkages rather than a dichotomy between the two. In doing so, it makes clear that LED from the perspectives of the local actors is not just 'local'; rather it is an approach that should link a Town/city with its hinterlands for a better economic development of the locality. The resulting analysis illustrates the utility of conceptualising LED from a rural-urban linkages point of view and recommends establishing a framework for the linkages that best explains LED processes.

The paper is divided into five sections. The next section illustrates the historical development of an LED approach and highlights the Ethiopian LED policy context. In the third section of the paper, there is an exploration of the study area and the methodology applied for the study. The fourth section assesses the perspectives of the various LED actors on LED processes in their local context. In the final section, the paper concludes that the LED process needs to move beyond the rural-urban divide to include rural-urban linkages.

2. Local economic Development as an Endogenous Development Approach

LED in the global South (particularly in Africa) is understood as 'self-reliance' strategies which are locally based initiatives with dynamic local leaders involving collaboration between key local stakeholders (Nel & Binns 2002; Nel & Rogerson 2005). These'self-reliance' strategies would appear situationally specific equivalent to the LED of the developed world (Binns & Nel 1999). Cheshire (2006), for example, describes the policy approach in Australia as one of 'self-help' rural development, despite support from the government (Beer & Maude 2002). The purpose of LED, particularly in poor countries, is increasingly targeted at creating decent jobs and stimulating local economies (MWUD 2006).

Very broadly speaking, LED as a concept has passed through three broad 'waves' from the 1960s onwards. During the first wave (1960s to early 1980s), the focus of LED was on the attraction of outside investment and hard infrastructure investment. In the 1980s to the mid-1990s, the focus shifted towards the retention and growth of existing local businesses, albeit still with an emphasis on inward investment attraction targeting specific sectors or certain geographic areas. In the last and current wave, LED has shown a fundamental outward to inward-looking shift with a growing emphasis on the enhancement of local capacities and competitiveness. Similarly, the tools applied towards attaining LED goals have also changed from the provision of subsidies to the creation of enabling environments (World Bank 2004).

2.1. The Ethiopian Local Economic Development Policy Context

Theoretically, Ethiopia has a clear and constitutionally backed legal framework to undertake LED following the adoption of constitutional federalism in 1991. Article 50(4) of the constitution requires the regional states to grant adequate powers to lower tiers of government to enable them to participate directly in development processes (FDRE 1995). As a result, a number of macro and sectoral development policies encouraging LED process have been implemented in the country. Of those initiatives, the decentralisation framework, the Plan for Accelerated and Sustained Development to End Poverty **(**PASDEP), the micro and small-scale enterprise development, the multi-faceted urban management reforms, and the Growth and Transformation Plans (GTPs) are notable.

Key guiding principles to foster LED approach with these initiatives include decentralisation, participatory development and enhancing the competitiveness of local economies. A carefully designed decentralisation policy would bring policy-makers closer to the public, allow citizens to voice their demands and better monitor the performance of the responsible politicians or

bureaucrats. It also plays an instrumental role in improving basic service delivery (Fritzen and Lim 2006). These theoretical advantages of decentralisation are important for fulfilling the objectives of an LED strategy. It is well established that the greatest benefits of decentralisation occur when sub-national governments are autonomous and accountable (Lee 2013). Decentralisation also encourages competition across different subnational governments, pushing governments to mobilise their own resources and potential to innovate. This competition further encourages innovation, compelling local and regional governments to think about new policies and strategies that can be adapted to the needs of their own territory (Thiessen 2003). This indicates that a genuine decentralisation would encourage mutual development and healthy relationships between different localities, regions and nations as each of them strive to bring about development

Ethiopia has experienced two stages of decentralisation since its adoption of decentralised governance. The first mid-level decentralisation (1991-2001) was centred on creating and empowering regional self-rule. However, this decentralisation failed to bring genuine self-rule at lower levels of administration, triggering the move for the second wave of decentralisation in 2001/2002 through the District Level Decentralisation Program (DLDP) and the Urban Management Program (UMP). Unlike the first wave which was limited to the four major regions of Oromia, Amhara, Tigray and Southern Nations, Nationalities and Peoples' Regions (SNNPR), this second wave of decentralisation has a simultaneous country-wide coverage including the remaining regional states of Afar, Somali, Benishangul-Gumuz, and Harari (Zimmermann-Steinhart & Bekele 2012).

The Ethiopian decentralisation process does not encourage rural-urban linkages for development. Rather it seems to influence the development policy of the country to follow a

dichotomous approach. For instance, the Urban Management Program (UMP) is concerned with LED at levels of cities or Towns (MWUD 2006) having an administration system that is distinct from the rural areas. Though there is nothing wrong with such a distinction, a practical policy framework that links the development plans of the two is lacking. On the other hand, a more rural-focused development policy, termed as Agricultural Development-Led Industrialization (ADLI) was introduced in the 1990s to boost the agriculture sector. In ADLI, agriculture is viewed as an important vehicle for industrialisation by providing raw material, market base, surplus labour and capital accumulation (FDRE 2002). The government argues that as an agrarian country with about 85 percent rural population, Ethiopia does not have the necessary capital for an outright industrial development. As a result, it assumes that developing the agricultural sector first and then proceeding to the industrial sector is an appropriate development strategy.

However, ADLI has been subject to criticisms questioning the capacity of the agriculture sector to lead the development of the country. In its present condition, agriculture cannot even feed the population that depends on it. The land is highly degraded in most parts of the country. Further, the agricultural labour force is largely unskilled and, hence, the chances of the sector to achieve capital accumulation and then lead to industrialisation are slim (Teshome 2006).

In 2010, the government introduced another'comprehensive' development plan, termed as Growth and Transformation plan (GTP) in which it aims at fundamental development changes to lift up the country from low income to middle income by 2030. In the sector of agriculture and rural development, the plan focuses on increasing the capacity and extensive use of labour, proper utilisation of agricultural land, linking specialisation with diversification, integrating agriculture with rural development, strengthening the agricultural marketing system and

effective implementation of the scaling up of best practices in the sector. These key strategies are aimed at ensuring smallholder farmers become the main source of agricultural growth by helping farmers graduate from subsistence farming to semi-subsistence/semi-commercial status through agri-business. By doing so, it is hoped to increase household cash incomes.

Under this commercialisation, smallholder farmers would be producing for the market and be supported to forge linkages with commercial input and output supply chains in order to connect with a growing agro-industrial sector and expanding food demand from urban consumers. However, this process of accelerating rural-urban linkages has not been implemented in practice. The prevalence of institutional gaps related to sector-wide linkages, relationships and synergies are rather more practical (FDRE 2010).

In the same package, the country has also devised urban development strategies to achieve the development plan. Key strategies in this sector include poverty and unemployment reduction, sustained and integrated development through rural-urban and urban-urban linkages, participatory engagement of the urban populations in development and governance, forming a strong partnership with the private sector and establishing effective decentralisation that ensures self-rule of cities and Towns (FDRE 2010).

From the subsequent development policies discussed so far, in theory, the significance of rural-urban linkages for development is acknowledged in the Ethiopian LED process in both sector plans of agriculture/rural and urban development strategies. Practically, though, the current sectoral LED policy focuses on cities/Towns local development by overlooking elements of the rural sector included in the overall LED processes. Accordingly, from 2009 to 2011, the

government, in collaboration with the United Nations Development Programme (UNDP), implemented its first generation LED intervention program focusing on major cities in four pilot regions. The cities included in the program were Asella and Nekemte in Oromia Region, Bahir Dar in Amhara Region, Hawassa and Sodo in the SNNPR, and Adigrat and Mekele in Tigray Region. The major objective of the intervention was to promote pro-poor economic growth and sustainable livelihoods through improving the enabling environment for business development, investment and targeted economic interventions in the cities.

Again in 2012, the second generation LED program (2012-2015) has been implemented focusing on three major intervention areas: (i) creating an enabling environment for LED, (ii) developing capacities of the key economic institutions, and (iii) targeted catalytic interventions. This time, the LED intervention included 27 Towns/cities in the four regions included in the first intervention program, and two other areas- Harari region and Dire Dewa city council. The principal objective of this program was to promote inclusive growth and create productive employment opportunities for women and youth through creating an enabling environment, developing capacities of the relevant public, private and civil societies and targeted intervention in the cities (FDRE & UNDP 2012).

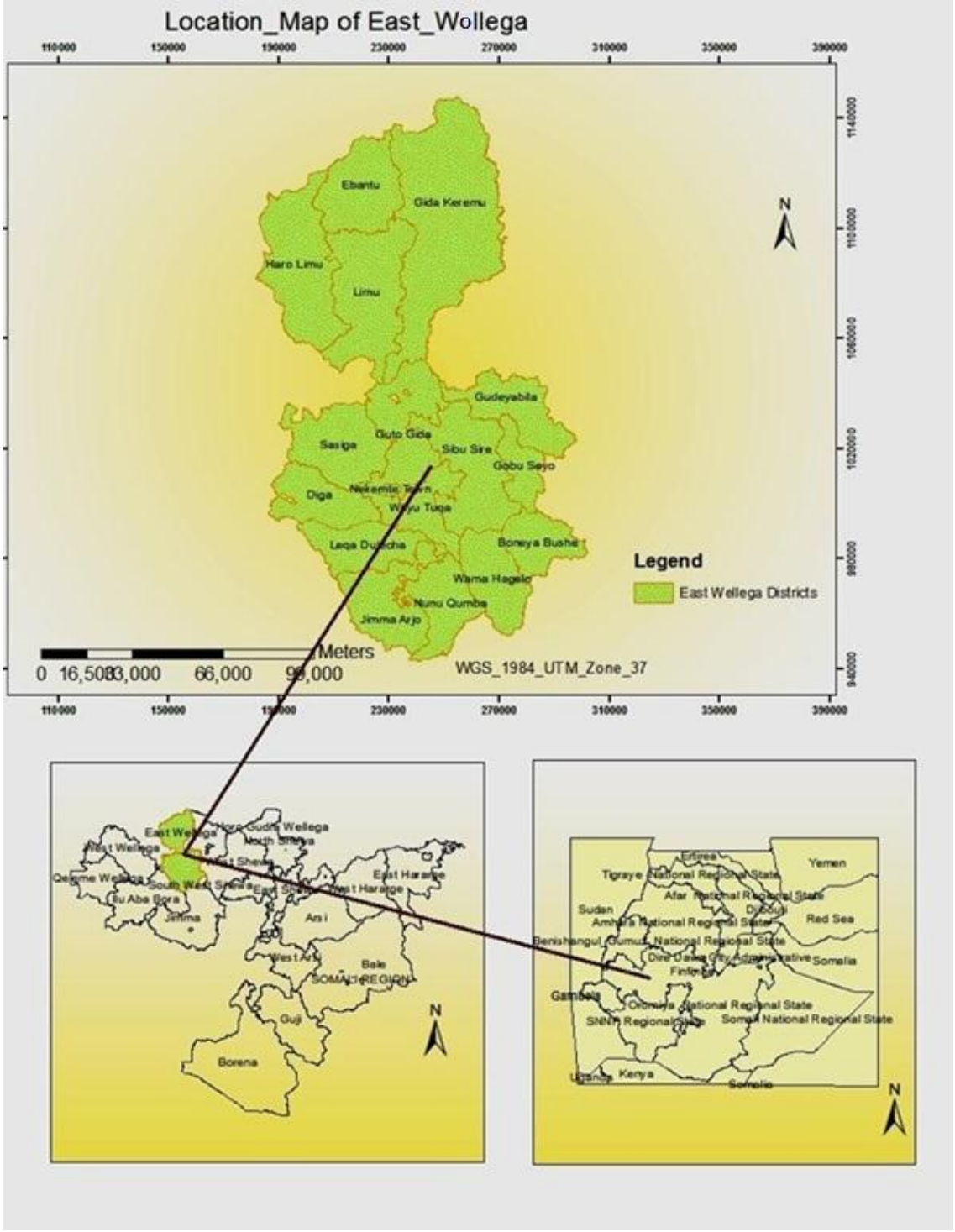
3. Study Area and the Methodology

3.1. About the Study Area

Currently, Ethiopia is composed of nine regions and two chartered cities (Figure 3.1). Oromia, the largest region in the country, has 18 zones, 304 districts (265 rural districts and 39 urban centres under reform) and more than 6889 Peasant and Urban Dwellers Associations (BoFED 2012). From the two Oromia Towns included in the first generation LED program, Nekemte was chosen for this study because of the dominance of maize (*Zea mays*) and niger seed

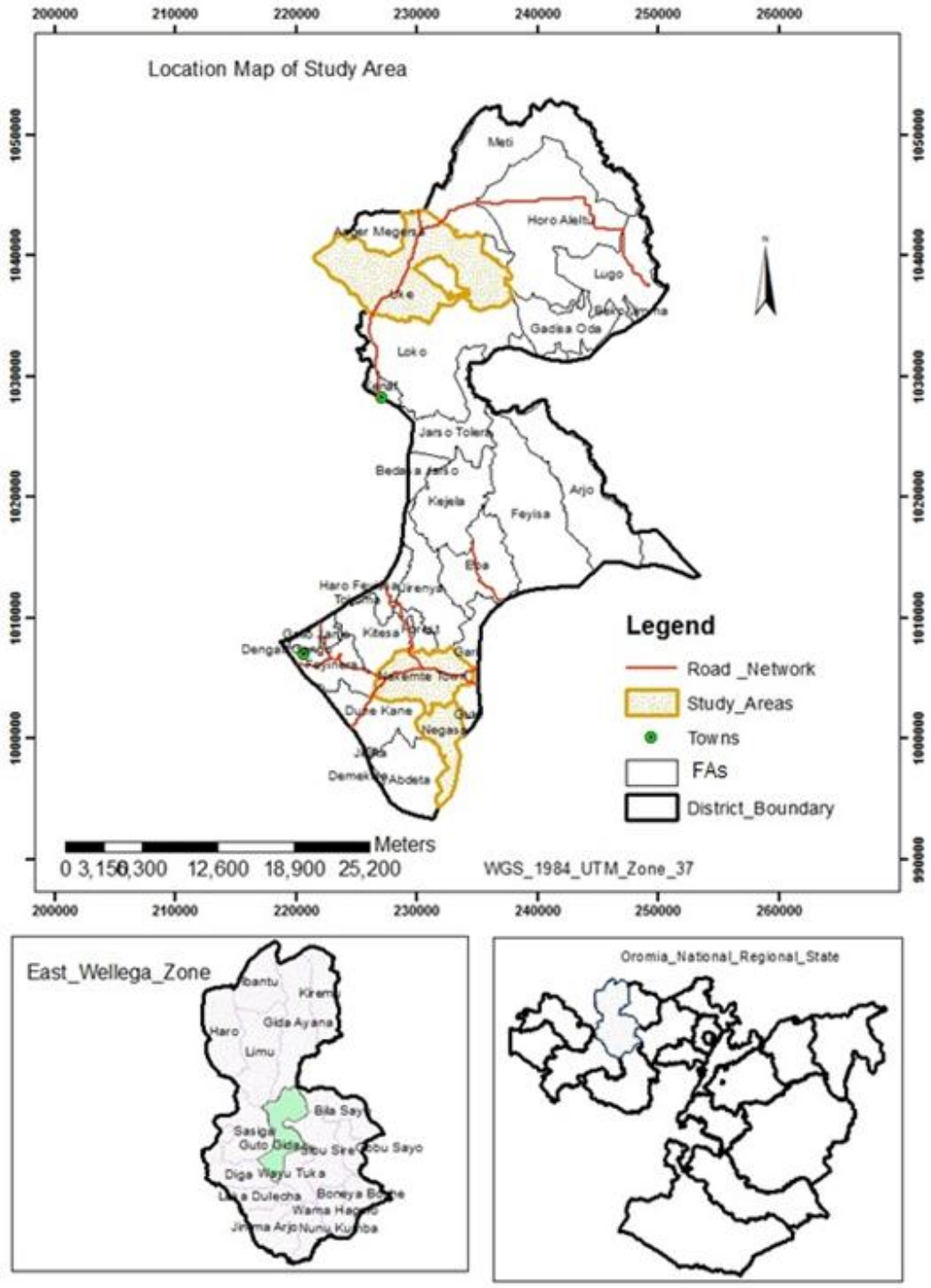
(*Guizotia abyssinica*) production in the surrounding areas which were used to analyse rural-urban linkages and LED. This study conceptualises LED processes from a rural and urban linkages point of view, and thus, the rural districts surrounding the Town are also included.

Figure 3.1. Location Map of East Wollega Zone



Guto Gida, one of the 18 districts in East Wollega zone, is located in the cradle of the zone and surrounding Nekemte Town. There are 21 Farmers Associations (FAs) and two district Towns (Lugo and Uke) in the district. Relatively speaking, it is bounded by districts of Gida Ayana and Limu in the north, Leka Dulecha in the south, Wayu Tuka in the east, and Digga and Sasigga in the west stretching on 1,091.5 square kilometers of land (Figure 3.2).

Figure 3.2 Location Map of Guto Gida District



The district is endowed with different agro-ecological zones ranging from warm weather in the low altitude areas (example, Uke FA) to cool weather in higher altitude areas (example, Negasa

FA), resulting in a conducive environment for the production of different varieties of crops. According to the data obtained from its Finance and Economic Development Office, the district enjoys tropical and sub-tropical climate with mean annual temperature and rainfall ranging from 16^0C to 31^0C and 580mm and 2200mm respectively. Demographically, it has a total population of 113,168 with the majority (about 94.8 percent in 2010/11 and 94.4 percent in 2011/12) living in rural villages.

Being in the cradle of the district, Nekemte Town also serves as the capital of East Wollega Zone and located at an earth distance of 331 km southwest of Addis Ababa (Finfinne), the capital city of Ethiopia. It linearly stretches over 3192 hectares. According to the data from its administration, the total population of the Town was estimated to be 95,088 in 2012.

3.2. Study Methodology

Sampling methods- This study applied the principle of data saturation and attainment of quality (Saunders, Lewis & Thornhill 2009). Adequacy of the sample size in a qualitative research is determined by the principle of theoretical saturation, which refers to the point at which no new concepts emerge from the review of successive data from a sample that is diverse in relation to characteristics and experiences. In an interview study, it is recommended that 20 to 30 interviews may achieve data saturation (Curry, Nembhard & Bradley 2009). Further, Kvale (1996) has observed that when the variables of heterogeneity and saturation are the driving forces of a research, 15±10 participants suffice in such studies. The study also provided a basis to understand the roles played by various participants. This eventually led to a triangulation of the information from the different sources and the generation of detailed and rich data.

The research participants were selected using snowball sampling technique, where the researcher first approached the District's Agriculture Office and discussed the objectives of the study and site selection. The research participants were purposively sampled to provide representative information and valid research conclusions. Uke and Negassa Farmers' Associations (FAs) were chosen because maize and niger seed products (which were used for the analysis) are best grown in these two areas. In the second stage, Development Agents (DAs) of the selected sites were contacted as key informants and also to help in the selection process of informants because they are local experts. Care was taken to include research participants from different backgrounds and attributes such as farm scale, gender (both males and females) and education. Publicly available secondary data from the agricultural office of the District were also reviewed to back up the primary data.

In the sample, large-scale[2], medium-scale and small-scale farmers were represented from both the FAs and approached. Accordingly, 30 farmer households (19 males and 11 females), nine traders (five males and four females), five millers (four males and one female), five edible oil processors (all males), and two agricultural extension workers (one from each sex) were interviewed. The names of all interviewees have been codified for the purpose of presenting the data commencing with PI (Personal Interview), followed by economic activities and locations of the respondents.

[2]According to the classification of the District's Agriculture Office, on average, large-scale, medium-scale and small-scale farmers are those who own 8 ha, 3 ha and less than 0.5 ha/farmer respectively.

3.2.1. Data Collection Methods

An ethnographic case study research design using in-depth interviews was used in the study. In-depth interview was used because of its ability to gather information from non-literate participants (Engelmann & Isiaho 2005). The information was collected from November 2013 to June 2014 and it was related to the various conceptualisations of LED and the significance of rural-urban linkages to conceptualise LED. All the recorded conversation was transcribed verbatim and themes were identified as the unit of analysis and were supported by the secondary data.

Data analysis methods- Data from the in-depth interview and secondary sources were analyzed using descriptive qualitative methods. All the recorded conversations were transcribed verbatim. Yin's (2003), principles of case study analysis, as cited in Brown (2008), such as addressing all pieces of evidence and major rival interpretations focusing on the most significant aspect of the case study and employing the researcher's prior knowledge were used to further the analysis. Narrative explanations during in-depth interviews were tape-recorded and transcribed later during analysis. These audio-recordings were complemented by written notes (i.e., field notes), which included observations of both verbal and non-verbal behaviours as they occur, and immediate personal reflections about the interview.

4. Result and Discussion

4.1. Local Economic Development from the Local Peoples' Perspectives

The various actors in the current LED processes in Ethiopia understand the concept in different ways. Incorporating their perspectives in the LED is crucial for the success of a sustainable

LED process because this would enhance local community participation in local development projects. This sub-section, therefore, presents the different views of the stakeholders on the conceptualisation of LED in Guto Gida district in Oromia, Ethiopia. It presents data from the perspectives of the local people and local experts by comparing it with the LED policy of the government (discussed previously) to unpack the LED.

4.1.1. Rural Perspectives on Local Economic Development

Rural peoples view LED processes from the perspectives of the reality around their villages. In response to the question how they conceptualise the approach, the farmers compare current practice with that of their grandparents. New developments include small-scale irrigation farms and diversification of products. They used to produce solely cereal crops such as maize and sorghum and oil seeds such as niger seed during the rainy season. But now they managed to diversify their production and even to produce twice a year. An interview of the DA in Negassa FA confirms this as follows:

> *....I used to produce only cereal crops. As this is not helping me anymore for self-sustenance, I am forced to diversify and produce cash crops to generate money. As you can see I am producing Gesho which has high demand in Nekemte Town as they use it for the production of 'Bookaa'* (Interview with a farmer in Negassa FA, 2013/14).

The introduction of new products such as vegetables and fruits, oil seeds, and other cash crops such as *Khat*[3] and *Gesho*[4] (Rhamnus prinoides) is a good example in this case. Most of such

[3] a stimulant plant where its fresh leaves and tops are chewed or, less frequently, dried and consumed as tea

products are perennial crops that do not need cultivating every year and this, in turn, supports environmental sustainability. It also saves money on fertilisers.

Another farmer supplements this argument quoting '*jiraachuu dandeenyeerra*'- meaning we could be able to survive. Further, he explains the history as follows:

> *In the past, this land was idle. Our fathers and grandfathers did not cultivate it. Now we are cultivating maize and vegetables and selling to the people in Nekemte Town. We are not only saving lives of our families from starvation but also providing food to the Town residents. We are seeing changes…we are not waiting for government support anymore and we are living on our own* (Interview with a farmer in Negassa FA, 2013/14).

According to the farmers, there is a change in production since they began the traditional irrigation scheme by diverting the locally available rivers (Figure 3.3) besides the usual rain-fed agriculture. The irrigation farm starts after November which is the dry season in the area. They produce vegetables and maize for local consumers in both the villages and Nekemte Town. Traditional small-scale irrigation is a new development in the area since the early 2000s with the initiation of ADLI as a development policy in Ethiopia (Ohno 2009). However, the farmers do the irrigation through their own initiatives apart from some technical support from the government through DAs.

[4] a plant used in the brewing of local beer

Figure 3.3 Vegetable and Maize Production by Traditional Irrigation in Uke Farmers' Association

From the local farmers' perspectives, LED is about perceived positive changes in production and productivity around their locality. The large-scale farmers can produce a surplus which can be sold to people in the Towns. This indicates a shift from subsistence production to commodity production. Of course, small-scale farmers also produce such cash crop to generate money to support their livelihoods. These surplus production and diversification further require the significance of a strong rural-urban linkages because of the production flows between the urban and rural areas. These linkages show that LED process is not only about development in rural areas but also the subsequent livelihood supports for urban residents as a result of the flows of these products between the two. The reality 'on the ground' also supplements these linkages where there are strong market interactions through the flows of people, commodity, and information between the two areas. These justifications necessitate the need to reconceptualise LED processes as inclusive, rather than sectoral in Ethiopia.

A community's economic, social and physical characteristics guide the design, approach and implementation of an LED process. To build a strong local economy, good practice proves that each community needs to undertake a collaborative process to understand the nature and

structure of the local economy. Productive public-private partnerships increase wealth in local communities. Municipal and/or district government create a favourable environment for the development to take place. External factors may also contribute to implementing the development project. These partnerships between and among the stakeholders would eventually lead to a sustainable LED process.

There was good progress in such cooperation in Guto Gida district before the government became reluctant to provide some of the agricultural extension packages to the farmers. In the district, the government used to provide the farmers with comprehensive extension packages including improved seeds, fertilisers, and technical support by deploying DAs at each FA. The farmers used to get those inputs, particularly seeds and fertilisers, from the government on a credit basis which they were supposed to repay after each production year. But the government stopped these services claiming the farmers are self-sufficient and they are no longer in need of loans from it. As a result, the farmers are forced to produce by their own effort which ended up in subsistent production. What they sell is not out of the excess production, but to get cash so as to support their other expenses. In a similar conceptualisation of LED in the South, particularly in Africa, as a self-support strategy (Rodríguez-Pose & Tijmstra 2005), these farmers production is a 'survival' strategy.

There are also other factors contributing to the persistence of subsistent production. Population pressure leading to the shortage of farmland coupled with the land tenure system in the country is one of the major reasons. As the land belongs to the state, there has been frequent redistribution of land by the government to accommodate new families. Landless farmers cannot buy land even if they can afford because of the land tenure policy

of the country. Article 40 (3) of the Ethiopian constitution declares ‘The right to ownership of rural and urban land, as well as of all natural resources, is exclusively vested in the State and in the peoples of Ethiopia. The land is a common property of the nations, nationalities, and peoples of Ethiopia and shall not be subject to sale or to other means of transfer’.

Using this constitutional‘right’, the government confiscated some of the farmers’ land and leased to investors (Figure 3.4) without sufficient compensation. This action disrupted the farmers’ livelihoods and exposed them to poverty, as a farmer from Uke FA explains the situation: ‘*I am working on investors’ farmland which used to be my property*’. Since they have not enough land to cultivate, the farmers are forced to work in the investors’ farm as daily labourers to support their livelihoods.

Figure 3.4. Farmland Confiscated from Farmers and Leased to Investors in Uke Farmers' Association

Another problem of the farmers associated with the land tenure is land fragmentation. The farmers share their land with their children as their offspring establish their own families leading to decreased farmland per farm households. As a result, only farmers who inherited from their parents have land to cultivate. An interview with a female household head in Uke FA below illuminates the critical problem she is facing due to lack of farmland. She is a widowed woman, aged 42 with three children. She migrated into this area from another district in the zone after her husband died:

> *I came from another area to Uke after my husband died. We had land in our original locality, but since I came here, I do not have any. I asked the local leaders to get, but they said there is no farmland unoccupied. I farm on those who have more, do the labour and share the yield with the owner* (Interview with a farmer in Uke FA, 2013/14).

Similarly, a farmer from Negassa FA commented on the problem of farmland saying he reported the problem in every meeting he had with the local leaders. However, the local leaders respond that the government cannot provide farmland anymore as there is no unoccupied land. He supports his family by renting from other farmers where he gives the rent in terms of yield that he produces from the land.

> *…. I do not have farmland at all. I use irboo-meaning renting from other farmers who have more farmland and pay the rent in kind (yield) after harvest* (Interview with a farmer in Negassa FA, 2013/14).

Even the renting is not sustainable as they have to renew the contract annually. Sometimes the former landlords do not want to renew the contract, change their minds to rent to another farmer, or even want to grow grasses for commercial purposes which worsen their problems. In the interview, he highlighted '*some landlords want to cultivate grasses to sell it to those who need to build hut houses*.' The landlords prefer this latter option as it not only restores the fertility of the soil for the next year's production but also generates good money from the grass they sale.

Farmers articulate the conceptualisation of LED from the perspective of the rural-urban linkages quite clearly. Their understanding is associated with the significance of the linkages to their livelihoods that is evident from the flows of products between the two. Farmers sell their products to consumers in Nekemte Town and get better income that helps them cover their minimum household expenses mostly obtained from the Town. In his words, a farmer in Uke FA puts this as follows:

> *…if there is no market opportunity in Nekemte to buy our products, where can I sell?...If I cannot get edible oil, salt, and other things I use in my daily consumption from Nekemte, how can I live here? Isaanis nubarbaadu, nutis isaan barbaadna-meaning we want each other* (Interview with a farmer in Negassa FA, 2013/14).

This commodity flow shows the mutual relationships between Nekemte Town and its hinterlands, making clear the inevitable integration of development plan between the two. This synergetic plan, in turn, results in sustainable LED processes and better unpacks the concept of LED in the Ethiopian context.

LED can also be perceived from the point of view of positive changes at an individual level which can be building a better house, paying school fees for children and other domestic expenses, buying agricultural inputs, and saving cash in banks. A discussion with a divorced female household head on the question how a progress at individual level impacts development of the locality shows that her living standard is changed from 'nothing' to'something'. For a divorced mother of three, life would have been challenging as there is no government support scheme for people in the country. However, she was able to support her children in school and other basic needs from the small scale farm and other non-farm activities. She is also able to change her house from hut to corrugated iron sheet (Figure 3.5) which she says is a change that defines LED:

> *...I was a daily labourer. But now I managed to change my life. I work non-farm activities besides the farming wherein the farming supports my consumption and the non-farm generates me additional income. By these, I have changed my house from hut to corrugated iron sheet, supported my children in school, and able to lead a better life. There are also other farmers who showed progress like me. The cumulative effect of this progress is changing the economy of the village* (Interview with Negassa FA, 2013/14).

Figure 3.5. Example of Improved Livelihood in Uke Farmers' Association

This evidence shows that LED processes is the cumulative results of the contributions of each individual in a locality. The endeavours the individuals make to feed their families and reduce their own poverty will ultimately result in the general poverty reduction of the locality. This indicates the multifaceted nature of LED process in which all the stakeholders from individual to institution levels need to take part. In the course of these contributions, there are significant linkages and networks between and among the stakeholders which better define LED.

Though it might be difficult to define the delimitation of a local in the context of defining what LED is, a careful scrutiny of the urban sphere of influence can be one indicator for such demarcation. From the discussion with the farmers, the economic, social and political/administrative linkages they have with Nekemte Town are significant to them. Apart from its economic significance, the Town serves as the capital of the zone where all administrative issues of the districts at the zone level are handled. Other social services such as high schools and colleges and hospitals are agglomerated in the Town. More than any other districts in the zone, Guto Gida is the closest to the Town as the Town is located at its centre. However, it should be clear that some businesses transcend this local boundary even to the international level. Maize production, especially by large-scale farmers in Uke FA, can be an indicative example where inputs for the production come from international market to the

locality and the maize production is mostly sent to regional and national markets. This type of production system has less contribution to the LED, especially if the investors do not invest on projects in the locality.

The provision of these social services at their vicinity also defines LED. Producers, traders and processors require these infrastructures if they are to successfully compete, prosper, and grow. Infrastructure (road and telecommunications) is essential for the production to reach the urban residents from the rural surroundings. Schools and health facilities have a strong impact on the local development. An interview with a farmer illuminated this concept:

> *…there was no mobile service in our places. There was no electric power provision at rural Towns. There was neither school nor health station in this Ganda. But now we have all these things after short distance travel* (Interview with a farmer in Negassa FA, 2013/14).

The services previously not in place include mobile networks, farmers training centres (FTC), primary schools, and veterinary clinics. DAs train farmers in the FTCs through which the farmers get technical support including fertiliser usage, planting, growing, harvesting, and selling their products. The social services also helped the people change their livelihoods in that as they got to school and medication at short distances, for instance, they had better health for themselves and their animals and produced more.

The expansion of mobile networks in the rural areas helped the farmers in their production processes. Farmers even in remote villages can get access to mobile networks. Using this service, particularly the large-scale farmers are able to communicate with traders in Nekemte and elsewhere to get market information. This reduces their transaction costs and abuses from

the intermediaries in the grain marketing as one farmer puts it '…*daldaalotni nagowoomsuu hindandeessu...*' - meaning 'middle person can no more cheat me'. They are able to get information from even the central market by calling their friends or customers. Since September 2014, Ethiopian Institute of Agricultural Research, in collaboration with the Ministry of Agriculture and Ethio-telecom, introduced new information hotline to help farmers get access to advise on best agronomic practice to revolutionize traditional agricultural practice. A State-owned Agricultural Transformation Agency exposes the services:

> *A new information hotline (8020) is giving smallholder farmers across Ethiopia access to best practice agronomic advice revolutionizing traditional agricultural extension... Twelve weeks after its launch in the Oromia, Amhara, Tigray and SNNP regions, the hotline has received nearly 1.5 million calls from 300,000 farmers* (http://www.ata.gov.et/8028-2/, last accessed 19-09-2014).

While the initiative to modernise agriculture and increase production is encouraging, the capacity of the small-scale farmers to afford the expense of buying the apparatus and recharging their mobile telephone needs further scrutiny.

4.1.2. Urban Perspectives on Local Economic Development

Similarly, urban residents have their own understanding of local development from their local realities. As opposed to the majority of the rural residents, most of the Nekemte Town residents are literate and better aware of the concept of LED. An interview with a resident in the Town of Nekemte points out some of the development areas that define LED even though not all are available in the Town:

> *…Availability of "Bulchiinsa gaarii"- good governance,* micro and small-scale enterprises *(MSEs), basic infrastructure and employment opportunities for our young define development of our Town* (Interview with a resident in Nekemte Town, 2013/14).

The interviewee clarified that LED in Nekemte Town is dictated by the presence of governance and service provision in the Town. These include good governance, provision of additional 'hard' infrastructure (like housing, roads, water, and sewerage) and 'soft' infrastructure (such as socio-cultural facilities, business development, and employment opportunities). Particularly MSEs best strengthen the rural-urban linkages because the rural areas are sources of raw materials for the enterprises (for example, edible oil processors and woodworks) in Nekemte Town. They are also centres for market opportunities for the (semi)processed products resulting in the mutual development of the Town and its hinterlands. An interview with an edible oil processor in Nekemte Town stresses the importance of these rural-urban linkages for his successful processing business:

> *…I have Maamila (customers) from rural and urban areas. Traders including from other districts Such as Limu, Sasiga, and Diga come and buy edible oil from me to later sell at their local markets. There are also consumers from Nekemte Town and its surroundings who directly buy from my store* (Interview with edible oil processor in Nekemte Town, 2013/14).

The processors' conceptualisation of LED is supplemented by traders who usually commute between Nekemte Town and its surroundings for their grain marketing businesses. Particularly retailers and collectors have good understanding of the significance of rural-urban linkages for

LED emphasising the contributions of infrastructure in strengthening the linkages as one collector explains:

> … ...*I go twice a week to Uke local market to collect maize from the local traders and sell it to collectors in Nekemte Town ... For Negassa, I do not usually go because of lack of road* (Interview with a collector in Nekemte Town, 2013/14).

From the traders' perspectives, the significance of roads linking the Town with its hinterlands is crucial for the strong rural-urban linkages and the resulting sustainable LED. The interviewee compares the strengths of the marketing linkages through the frequency of the visits to collect grains. As such his visits to Uke FA are more frequent than his visits to Negassa FA because of the better road facility between Uke and Nekemte Town and the subsequent operations of vehicles in between the two. There is an all-weather (gravel) road linking Uke FA with Nekemte Town. It is clear that farmers in Uke FA benefit more as they get more traders to buy their grain products at a competitive price than those in Negassa FA.

For Negassa FA, there is only a dry-weather road which is very poor (Figure 3.6) and thus, farmers have difficulty to get into market access in Nekemte Town especially during rainy seasons. This adversely affects the livelihoods of the people in both the Town and the FA. Even though the farmers can get market information from the Town, they have to carry their products themselves or use donkeys to transport and get access to the market. Otherwise, they are exposed to an exploitation of middle person.

Figure 3.6. A typical Dry-weather Road Linking Nekemte Town with Negassa Farmers' Association.

4.1.3. Government Workers' and Experts' Conceptualisations of Local Economic Development

The perspectives of other LED stakeholders on conceptualising LED are also crucial to better unpack the concept of LED. Agriculture extension workers (Development Agents) in particular

are important in this case as they are practitioners linking government agriculture policy and farmers at a local level. This is because the nature of their work gives them opportunities to evaluate the different LED perspectives of the government and the farmers. They provide technical and professional support to the farmers to help them produce more and support their livelihoods. In the course of helping the farmers from door-to-door, the extension workers have a thorough knowledge of conceptualising LED. The significance of rural areas to urban areas and vice versa is basic in defining LED as one DA explains:

> *Local development to me is "giddina naannoo jiraannuu"-literally meaning development in our surroundings. It includes the source and end of production. The majority of the cereal crops are consumed locally, but almost all of the commercial crops are sold at market in Nekemte Town as the farmers make good money out of the sale. The same is true from the other side. Processed products and other home consumption needs of the rural population are obtained from Nekemte Town. Therefore, these two areas support each other* (Interview with DA in Uke FA, 2013/14).

In the interview, she underlines the importance of the rural-urban linkages in the development of the locality including from her own experiences. She observes strong production-consumption linkages between Negassa FA and Nekemte Town as she daily commutes between the two to help the farmers. She explains: '*I see flows of people and products whenever I travel on this road*'. For the livelihood of farmers in this FA, Nekemte Town plays an important role as it serves as centres for the sale of their agricultural products, schools of their children, and purchases of (semi)processed products. Nekemte Town is also highly dependent on the production coming into its market from the surrounding FAs. The

researcher's observation of the commodity flows between the FAs and Nekemte Town in the district also justified the significant of the linkages for LED.

In its LED implementation strategy, the Ethiopian government admits the importance of linkages between urban and rural areas as well as between and among different stakeholders of sector development programs to foster development. The development of urban economy cannot be sustainable unless it is linked to the rural economy and vice versa and, thus, it is crucial to give special attention to those economic sectors such MSEs that foster and enhance rural-urban linkages in any locality (FDRE & UNDP 2012). In practice, however, this is not the case in the current Ethiopian LED process as its targets are solving Towns/cities problems. Because of the government's sectoral priority in favour of Towns, UNDP has also to follow the same trajectory and considered only Nekemte Town in its LED project implementation in the area. An interview with Nekemte city LED expert substantiates this as follows:

> *…we are happy to include rural areas in the LED framework, but the government wants us to do only on urban centres…*(Interview with LED expert, 2013/14).

The government claims that it prioritised urban centres for the LED initiative because of the seriousness of the problems such as unemployment and under-employment, high food prices, population growth, homelessness, lack of sanitation and migration in urban areas than in rural areas. However, evidence shows that these problems are also prevailing in the rural areas in the country. The majority of the rural residents are food insecure. Out of the 30 farm household research participants in this study, 22 responded that they have no surplus agricultural production and are unable to feed their families. The majority of the farmers own farmland less

than one hectare. Therefore, solving urban problems cannot be achieved by ignoring the rural areas because rural areas are sources of employment (in the agriculture sector in particular) and food for the urban residents among others.

Although the focal city in a given local economy is central to change, it cannot be examined as a closed system, given the contemporary globalised world. The city lives by its relations with its area of influence (hinterland). It is essential to perceive the city not only in terms of its own activities and internal changes (both social and physical) but also as a centre that organises its area of influence, channels the movement of people, goods, and money, and generates local economies. By conceptualising LED process as an inclusive of a Town and its surrounding, this complex and shifting reality between the two geographic areas is best described (Sahel 2001).

5. Conclusions

LED is a multifaceted development approach lacking an agreed upon definition as it is influenced by a number of local realities differing from place to place. LED stakeholders have therefore used the approach from their own perspectives and interests and, thus, LED remained a controversial concept among development practitioners. This conceptual ambiguity needs to be clear for the effective and sustainable LED process by considering the local realities. This paper sought to illustrate the concept of LED by exploring local views, which is triangulated with views from literature, the reality "on the ground" and the current Ethiopian government LED policy. These different views of the LED stakeholders are scrutinised for the better conceptualisation of LED process in the Ethiopian context.

It is argued that the nature and extent of economic linkages through production, consumption, employment and financial linkages, and various types of economic and social service provision between Towns and their hinterland constitute key factors shaping local development dynamics and potential (Wandschneider 2004). Tacoli (2003) also posits that rural-urban linkages have relevancies to livelihoods of both rural and urban population. Recently, therefore, development planners have come to acknowledge the significance of the synergy of rural and urban sectors in local development and argue that the linkages between agricultural, industrial and service sectors, where agro-industry and agri-commerce can act as potential engines of agricultural development (Schejtman & Berdegué 2008) are crucial for development. In doing so, an institutional focus linking local actors (endogenous) with those situated outside the local actors (exogenous) need to be established.

LED in Ethiopia, however, is sectoral in practice in a sense it focuses on urban locality disregarding the linkages between the two. The existing LED process theoretically acknowledges the importance of the rural-urban linkages for the better development of the locality. Wide ranges of literature also limit the concept of LED to urban areas (MWUD 2006; Heideman 2011; Rodríguez-Pose & Palavicini-Corona 2013). Data from the field proved that rural-urban linkage perspective of LED is only theoretically in place in Guto Gidda district. The practical policy framework to link rural and urban areas for a better LED is deficient. Speaking with the local people in both the urban and rural areas, it was clear that LED is best conceptualised from the perspectives of rural-urban linkages point of view. The dichotomous view of the rural and urban development approach is a major hindering factor for successful and sustainable LED process in the country. Municipal governments assume that local development is confined within the urban boundary despite the significant rural-urban linkages through the flows of resources/products, people, and information. Obviously, municipalities

cannot solve their internal problems such as unemployment and food shortage by their own. Rural areas also need to be processed and semi-processed products and financial services among others from the urban areas for their livelihood and development.

Triangulating these different data sources, the study concludes that understanding rural-urban linkages are a prerequisite for better understanding and implementation of LED process in Ethiopia. The dichotomous LED conceptualization in practice in Ethiopia does not bring the required change in development. In its attempt to achieve the GTP as a broad nationwide development plan, this conceptualization of LED from rural-urban linkages perspective greatly contributes its part to the success of the plan particularly in the agriculture and small scale industry sector. This paper, therefore, makes clear that fostering linkages between and among the stakeholders in both urban and rural areas (public, private, municipal/ district government) would result in a sustainable development of the locality and recommends the establishment of a framework for the linkages that best explains LED in Ethiopia and other developing countries.

Chapter 4 Netchain Analysis of Maize and Niger Seed Value Chains and LED in Nekemte and its Hinterlands, Oromia, Ethiopia

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1. Introduction

Ethiopia's economy is chiefly agricultural, with more than 80 percent of the country's population employed in this sector. The sector is source of food, industrial raw-materials, and employment opportunities for about 89 percent of the economically active population in Oromia Region (NRSO 2014). The production, processing, and marketing of agricultural products therefore significantly impact the development of the country. Maize is the largest crop by production volume, as well as the single most important crop mostly produced by small-scale farmers in Ethiopia (Rashid, Getnet & Lemma 2010). Niger seed is an indigenous oil seed and one of the most popular crops exclusively produced by smallholder farmers for local consumption in the country. Although recently sesame overtook the first position in terms of volume of production, a very large portion (90 percent in 2011/12 production season) of the sesame is produced for external market which has less contribution to the local economic development (LED) as compared to niger seed (Geleta & Ortiz 2013).

Vibrant agro-processing industries are central to LED as they generate employment and income, enhance productivity and production, and eventually attain food security through improved value chain. Agro-processing involves turning primary agricultural products into other commodities for the market, which involves the flows of production, people, information and finance between urban and rural areas. In Guto Gidda District, this includes edible oil processing (mainly from niger seed) and cereal milling which are produced in the rural areas and transported to Nekemte Town for processing. Oil processers are based only in Nekemte Town because the business needs higher capital and electric power to generate the machines. Grain millers are found in both the Town and its rural surroundings as they can operate with lower capital and power which is the characteristic feature of villages in the study area.

Despite the importance of agro-processing industries to LED, evidences show that their contributions in Ethiopia are negligible due to factors such as poor infrastructure, low productivity, lack of stable market, poor agro-processing quality, and under supply of electricity (Mado & Saio 2009). Especially for small-scale farmers, market accessibility for their products is difficult because of lack of precise market information, weak connections with market actors, credit constraints and high transaction costs (Miehlbradt, McVay & Tanburn 2005). No empirical data has been collected and analysed in the study area to identify the problems associated with poor contribution of agro-processing to LED despite the availability of the (small-scale) agro-processing industries. The majority of the residents in both Nekemte Town and its hinterlands are in a poverty cycle all the year round except peak harvest seasons. They have low purchasing powers and are unable to secure food at family levels. The overall agro-processing business in the locality is weak to support LED processes.

When studying grain marketing, two types of linkages (vertical and horizontal linkages) can be identified (Min 2011). The former explains the linkages between farmers and other market actors including traders, processors, and retailers and are best analysed using value chain (VC) and supply chain (SC) approaches (Ramsay 2005). The latter is concerned with linkages among the actors themselves which are analysed using network analysis (Powell 1990). Studying rural-urban linkages and LED is a complex and multifaceted process involving the linkages between and among firms and individuals in firms of different sizes and levels. It encompasses the flows of products, people, and information between urban and rural areas that the traditional chain approach fails to analyse by itself. While VC and SC are important mainly in analysing the vertical flows of resources (mostly in a business scenario), network analyses the horizontal linkages (such as social capital) between and among agents in LED processes. For a full understanding of rural-urban linkages and LED, both of the two linkages have to be

analysed at the same time. This study proposes the use of netchain analysis using maize and niger seed as a case study because of its capacity to analyse both the vertical and horizontal linkages simultaneously (Lazzarini, Chaddad & Cook 2001)).

The principal objective of this paper is to analyse the netchain of maize and niger seed products and its implications to LED in Guto Gidda District. Netchain approach enables the analysis and understanding of the interplays between and among key actors in the rural-urban linkages and LED processes where the firms are quite small to a level of one person or one family, and the influence of social relationships on the agro-business is high. It answers key research questions related to factors affecting production and processing of grains and flows of people and information between Nekemte Town and its hinterlands. By doing so, the paper draws netchain maps showing chains of maize and niger seed products, the relationships between and among producers, traders and processors and flow of information along the different layers of the stakeholders that the traditional chain analyses fail to do. It makes clear how the netchain of these products affect LED processes in the study area by focussing on how value is created, where it is destroyed and what factors affect the netchain. The result of this study will inform LED policy-makers and practitioners and provide a framework for enhancing rural-urban linkages.

Following the introduction, this article will explain in more detail the netchain approach, and how it differs from other traditional approaches of chain analyses. The third section describes the study area and methodology applied for the study. The fourth section presents results and discussion on the agro-processing and marketing of maize and niger seed, factors affecting the netchain, and netchain governance in the study area. Lastly, the paper concludes that the

netchain approach is a useful way to analyse rural-urban linkages and LED in developing countries as it made possible the understanding of the impacts of the linkages on LED processes when the firms are quite small to a level of one person or one family.

2. Theoretical Model of the Netchain Analysis

There are wide ranges of approaches scholars affiliated with disciplines including sociology, economic, agribusiness and human geography have so far been using to analyse economic development. These analytical approaches can be categorised under two groups of either vertical or horizontal linkage depending upon their specific interests. Some of these analytical approaches include: *VC* (Porter 1985; Faße, Grote & Winter 2009; Trienekens 2011), *SC* (van der Vorst 2000; Carbone, Glli, & Sorrentino 2009), *Networks*, (Powell 1990; Schmitz & Nadvi 1999; Murdoch 2000; de Nooy, Mrvar & Batagelj 2005), and *Netchain* (Lazzarini, Chaddad & Cook 2001; Perez & Martinez 2006). This section explains the vertical and horizontal linkages, compares and contrasts the different analytical approaches and justifies why the netchain is chosen over the others in this study.

Vertical linkage refers to relationships between a firm and its buyers and suppliers and it is concerned with how internal VC of a firm is related to those of its buyers and suppliers (Hergert & Morris 1989; Dekker 2003). It also represents channels for non-financial transactions such as learning, information and technical from one firm to another along the chain, which are important elements of buyer-seller relationships (Choudhary 2008). Horizontal linkage represents a relationship (formal or informal) among firms performing similar functions. Such linkage is made up of firms that share similar technology or service needs, whether or not

they are in the same product chain, to reduce transaction costs and generate economies of scale (Campbell 2008). The linkage may also help small-scale producer groups to have strong potential to increase their bargaining power in the marketplace, while processors, suppliers and traders may also form their own groups to strengthen their position within industries.

VC, alongside similar approaches like the "*filiere*" (French origins of the commodity chain), are derived from world systems theory (Raikes, Friis Jensen, & Ponte 2000) and first attended to by Porter in the 1970s and 1980s. He studied competitive advantages of firms reflecting the value adding character of business processes within borders of the firms (Porter 1985). A VC is defined as a linked set of value-creating activities all the way from basic raw material sources for suppliers to consumers' end use (Shank 1989). The approach of VC focuses on primary processes, mainly transformation and transaction processes in and across vertically related companies (Trienekens 2011).

Taking the VC approach to economic development involves addressing major constraints and opportunities a business or an industry faces. These activities include facilitating access to cheaper or better inputs, strengthening the delivery of business and financial services, increasing access to higher-value markets or simplifying export licensing (Dempsey & Campbell 2006). This is a purely linear relationship involving actors in designing, producing, marketing and distributing of a good or service. VC is also designed to assist corporate executives to identify the 'value' embodied in those elements and to decide how that value can be enhanced in the interests of building competitive advantage in the firm sector (Porter 1985).

VC approach nonetheless fails to fully analyse the overall linkages between and among firms. It is more interested in vertical linkages whilst overlooking the horizontal linkages. Four limitations of VC analysis are identified: the first is its limit to financial dimension where business value is equal to the turnover of which the costs of activities are deducted. Second, the activities of values in this approach are structured sequentially leading to its third limitation of overlooking the interactions between different activities. Lastly, due to this linear approach, it fails to incorporate feedback that results from the interaction of the VC with external parties (Daaboul et al. 2012).

Broadly speaking, SC focuses on successive stages of value creation in a vertically organised set of firms (Lazzarini, Chaddad & Cook 2001). In an attempt to create business relationships along production and distribution chain, Dyer (1997) first applied an integrative approach of SC management (SCM) to study automobile sector in the US and Japan. In recent years, however, researchers and practitioners have recognised the useful application of SCM to the agrifood sector (Perez & Martinez 2007). However, Lazzarini, Chaddad, & Cook (2001) posit that SC analysis is not well equipped to discuss horizontal relations among suppliers as it focuses on elements related to vertical transactions such as logistic management or the design of contractual arrangements between buyers and suppliers.

VC and SC analyses have similarities with a slight difference in focus. Both are complementary views of an extended enterprise with integrated business processes enabling flows of products and services in one direction, and of values (as represented by demand) and cash flow in the other direction (Ramsay 2005). The primary difference between the two is that each step in a VC usually adds value to the goods being moved through the chain while the goods moving

through a SC may not gain value in the process. However, values can sometimes be thought to operate in both directions when, for instance, suppliers derive value from the financial resources and payment terms that their customers provide, and the customers, in turn, derive value from the delivered products and services (Feller, Shunk & Callarman 2006).

Rooted in the sociological science, the concept of networks also received fundamental support from economics, mathematics and computational sciences to construct a solid and structured framework of social networks and relationships analyses (Smith et al. 2002; Talamini & Ferreira 2010). Network analysis (NA) is concerned with horizontal relationships between firms belonging to a particular industry or groups of industries involving intricate, multifaceted, and durable relationships (Powell 1990). It highlights the nature and extent of the inter-firm relationships that binds sets of firms into larger economic groups (Sturgeon 2001). These relationships include supplier relationships, resource flows, trade association memberships, interlocking directorates, relationships among individual employees, and prior strategic alliances (Gulati 1998).

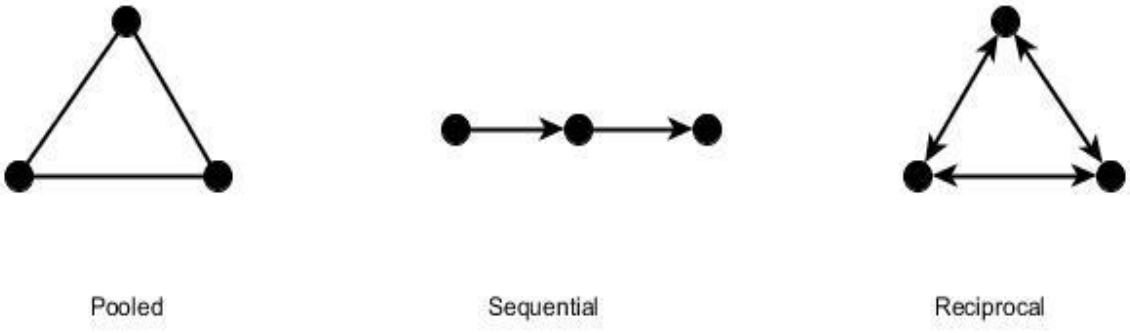
From the discussion so far, despite the attempts of some scholars like Dekker (2003) to use VC analysis to study interfirm relationships in the UK, recent works indicate the negligible attention of VC and SC to horizontal linkages. Henderson et al. (2002) clearly assert the major weakness of 'chain' approach is that it conceptualises production and distribution processes as being essentially vertical and linear. The reality, however, is that such processes are highly complex network structures involving horizontal, vertical and diagonal relationships with multidimensional and multi-layered frameworks of economic activity. Horizontal linkages could facilitate production and marketing efficiencies and enable the flow of information, learning, resources and benefits between and among firms. These elements, which seem to be

missing in both VC and SC analyses, are crucial in LED and thus these approaches may not fully address the objectives of this study by themselves. Network analysis also misses the vertical integration of industries and thus a combination of horizontal and vertical linkages need to be in place for a comprehensive study of rural-urban linkages and LED processes.

Netchain, after Lazzarini, Chaddad, & Cook (2001), is a new concept to combine these two approaches together. They define a netchain as a set of networks comprised of horizontal ties between firms within a particular industry or group, such that these networks are sequentially arranged based on vertical ties and mapping how agents in each layer are related to each other and to agents in other layers. This is done by integrating chain and network analyses by being cognizant of the complex inter-organisational interdependencies.

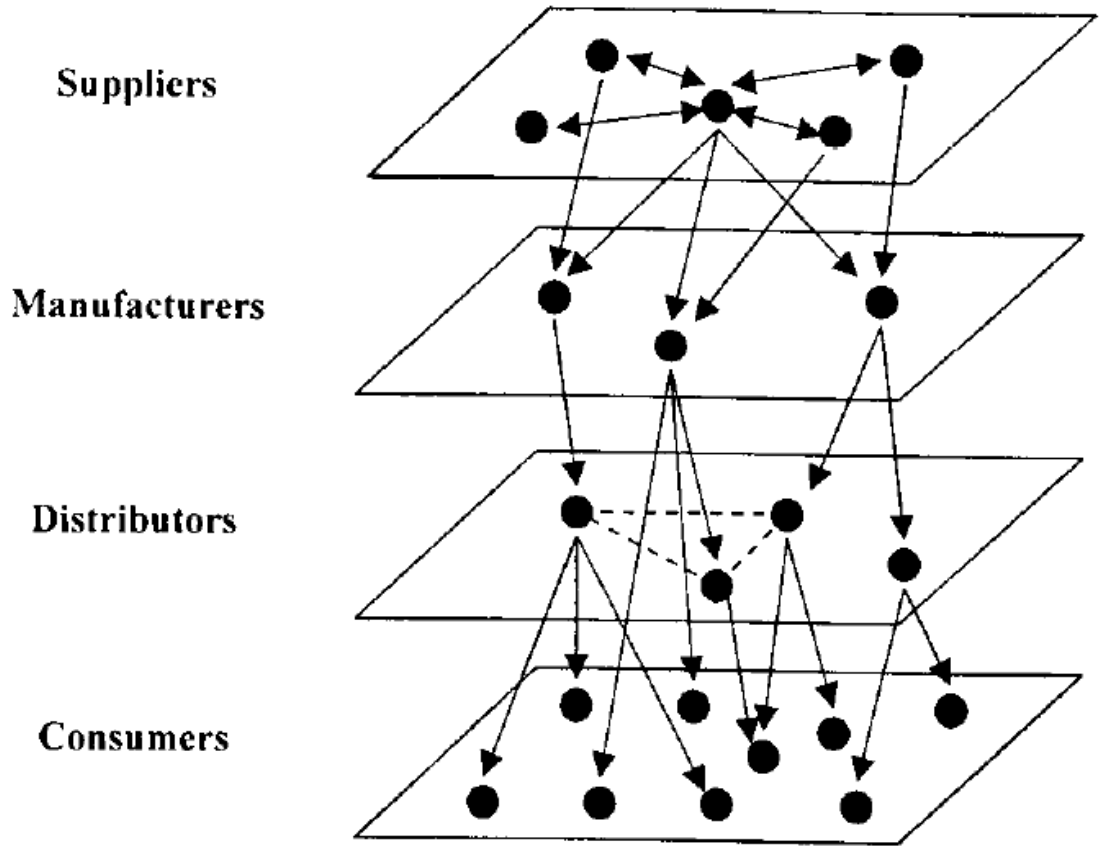
Thompson identifies three types of inter-organisational interdependencies: *pooled, sequential, and reciprocal* (O'Toole Jr & Montjoy 1984). Pooled interdependence occurs when agencies involved in the organisational activities are asked to provide their own contributions, but do not have to deal with each other to do so. In the sequential interdependence, a series of structural tasks, wherein the output of one unit is the input for the other, is observed. That means one entity cannot start producing its output until it has received the output of the other. Reciprocal interdependence involves a simultaneous ongoing relationship between parties in which each agent's input is dependent on the other's output (Figure 4.1).

Figure 4.1 Representation of Types of Interdependence (Lazzarini, Chaddad, & Cook (2001)



Based on this typology, Lazzarini, Chaddad & Cook (2001) argues that SCs focus on sequential interdependence whereas the pooled and reciprocal interdependencies are represented in the network. For maximum benefit of the values of horizontal and vertical linkages, they suggest the combination of both which can be integrated in the netchain analysis (Figure 4.2).

Figure 4.2 An Example of a Generic Netchain (Lazzarini, Chaddad, & Cook 2001)



There are multiple actors in the maize and niger seed agro-processing in Guto Gidda District. The between and within relationship of farmers, traders, processors and consumers of the products has to be analysed simultaneously to better understand the agricultural value chins and LED processes. This is particularly important in the context of developing countries where the contributions of social capital in development are also significant. Factors that limit economic linkages between the two areas can also be extracted using this approach. Therefore, the netchain approach does not appear sectoral in focus (Lazzarini, Chaddad & Cook 2001), and thus is relevant to this study. By applying this analysis, crucial elements related to the different kinds of interdependencies at firms or individual levels may not be overlooked.

2.1. Netchain Governance and Social Capital

Governance from a network perspective can be defined as informal social systems structures within firms and formal contractual relationships between them (Powell 1990; Jones, Hesterly & Borgatti 1997). Particularly relational contract between firms or parties is important as they involve future profit out of cooperation, sense of obligation and family connections (Campbell 2004) In this paper, governance is conceptualised as the means of creating the conditions for effective collaboration in the netchain, which is concerned with key characteristics such as netchain partner selection, the type of agreements among netchain actors, as well as the strategic coordination within the netchain. The influence of ICT in facilitating information flow along the netchain is also recognised.

Governance based on trust improves production quality and reduces transaction costs among firms and organisations through trust-based individual relationships (Talamini & Ferreira 2010). At group level also a set of inner rules (also called trust) may evolve over time in local cooperatives (Bonus 1986) which grows out of experiences one has had with a person or group. Trust entails a prediction about behaviour of an independent actor, and personal interaction generates information about the trustworthiness of other actors that is relatively inexpensive and reliable (Putnam 1993).The influences of farmers' Cooperative Unions in governing the netchain are also documented in literature. The formation of (reciprocal) interdependencies among farmers in local cooperatives is explained as a consequence of intimate personal knowledge and strong social ties where members are likely to employ joint decision-making and problem-solving to coordinate their activities (Lazzarini, Chaddad & Cook 2001).

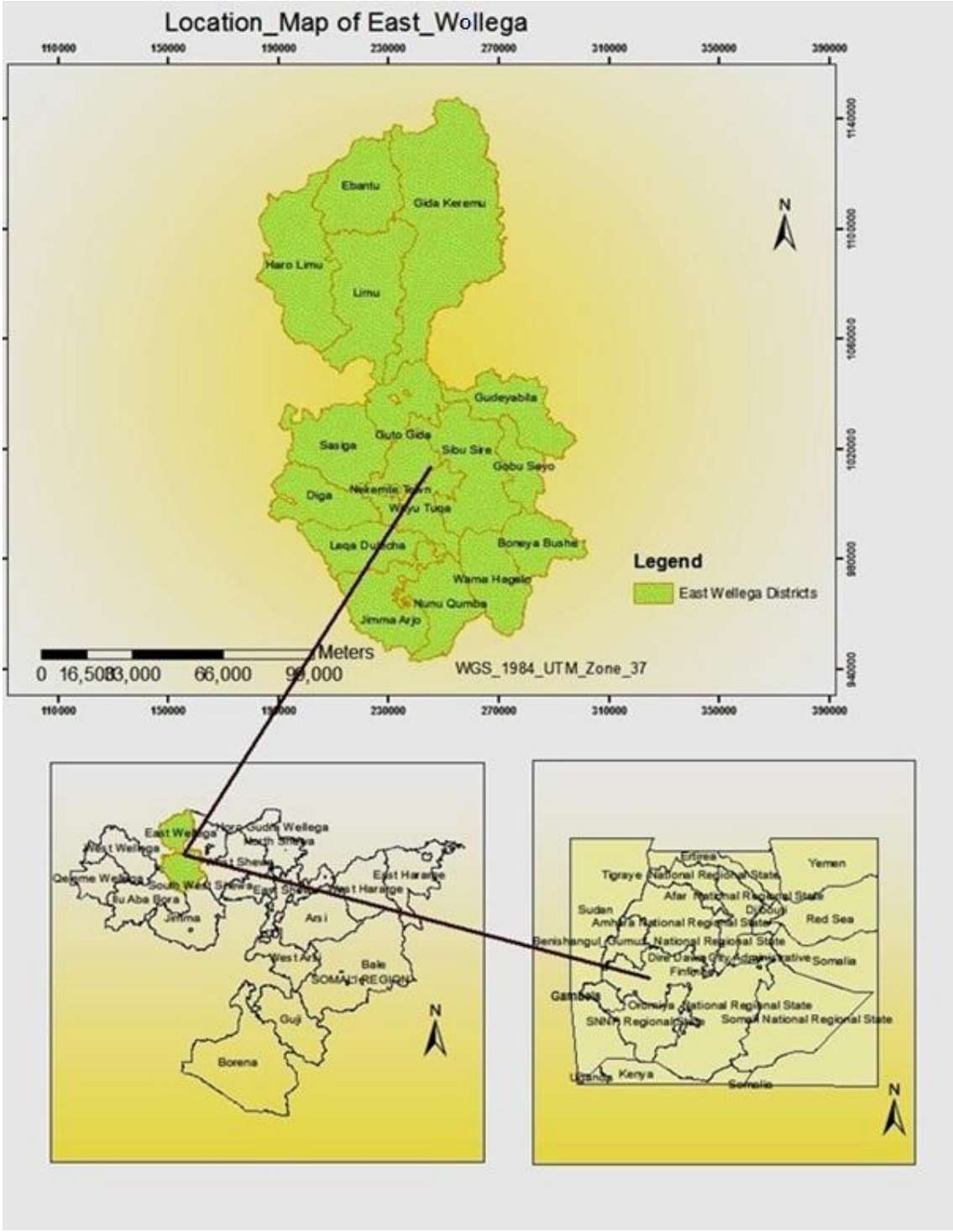
In this study, the netchain governance includes all the stakeholders in the agro-processing such as farmers, traders and processors. Farmers (being members of farmers' Cooperative Union) may negotiate market prices with the traders which would save them from exploitation by traders and intermediaries. These local Cooperatives may also provide agricultural inputs in cooperation with district agricultural offices to the member farmers at fair prices. Government agents have a facilitating role in this netchain where they provide agricultural inputs to the farmers, and regulate prices if there is any price escalation by the traders and processors. This regulation may include setting the range of prices, redistribution of products from surplus to deficit areas and importing products that are in serious shortage in domestic markets.

3. Characterisation of the Study Area and Methodology

3.1. About the Study Area

This study was conducted in Nekemte Town and its hinterlands in Guto Gidda district. Guto Gidda district is located in East Wollega Zone of Oromia region in Ethiopia (see Figure 4.3) lying between 08° 59'and 09° 06` N latitude and 37° 51`and 37° 09` E longitude.

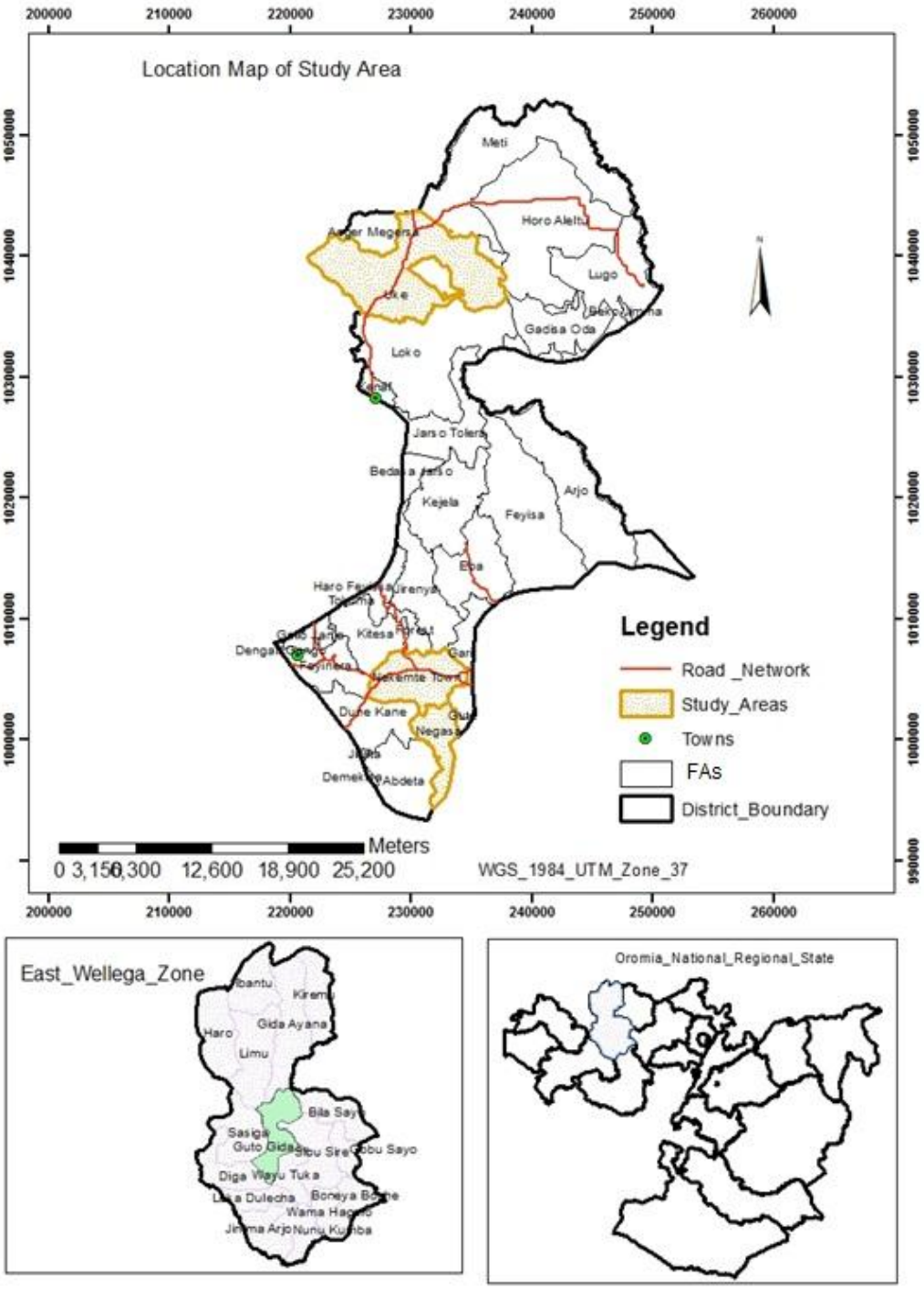
Figure 4. 3 Location Map of East Wollega Zone



The district is bounded by Gidda Ayana and Limu districts in the north, Leka Dulecha district in the south, Wayu Tuka and Sibu Sire districts in the east, and Digga and Sasigga districts in the west (see Figure 4.4). From the two Oromia Towns (Nekemte and Asela) included in the

sectoral LED programme in the country in 2009, Nekemte was chosen for this study because of the dominance of maize and niger seed production in the surrounding areas which were used to analyse the grains netchain and LED processes.

Figure 4.4 Location Map of Guto Gidda District



Guto Gidda district is endowed with a wide range of agro-ecological zones ranging from warm weather in the low altitude areas to cool weather in higher altitude areas, resulting in a favourable environment for the production of different types and varieties of crops. Information obtained from its Finance and Economic Development Office indicates that Guto Gidda district enjoys tropical and sub-tropical climate with mean annual temperature between 16^0c and 31^0c, and annual rainfall between and 580mm and 2200mm. In terms of its soil types, Guto Gidda district is dominated by loam, sand, clay loam, clay and silt with a share of 42.8 percent, 23.09 percent, 16.33 percent, 8.08 percent, and 9.7 percent respectively. It has a total population of 113,168 with the great majority (about 94.4 percent in 2011/12) living in rural villages. There are also small market centres such as Bandira in the Negassa Farmers' Associations (FA) where small-scale traders collect maize and niger seed products for the nearby bigger markets.

Nekemte Town is serving as the capital of Guto Gidda district and also of East Wollega Zone. It is located at latitude of 9°5′N 36°33′E and longitude of 9.083°N 36.550°E, with an average elevation of 2088 metres above sea level. It is located at a distance of 331 km south-west of Addis Ababa (Finfinne), the capital of Ethiopia. According to the data from its administration, the total population of the Town was estimated to be 95,088 in 2012. The central statistics of the country projects the population of Nekemte Town to be 115,741 in 2017 (FDRE 2013).

3.2. Study Methodology

Netchain is a recent analytical approach in chain relationship studies in different settings where only a few researchers, most of whom are concerned with organisational relationships (Trienekens 1999; Cox et al. 2004; Ireland 2004; Althoff, Ellebrecht & Petersen 2005; Storer & Taylor 2006; Cleary 2012; Nijhoff-Savvaki, Trienekens & Omta 2012) have practically applied.

Netchain (zero level chain linkage as Storer & Taylor 2006 term it) is useful to get an overview of chains and highlights the weaknesses or opportunities to improve the chain performances but fails to provide enough detail to make a judgement on how to solve the problems. Storer & Taylor (2006), therefore, propose a multiple level chain relationship with an addition of details to the netchain to show the nature of the relationship strengths and operational mapping tools. They used a survey technique of data collection to assess the different organisations, trading volume, and the strength of relationships.

However, this particular study focuses on identifying key individual farmers, traders, processors and local agriculture experts involved in the VC where there is no need for mapping internal relationships among departments and levels of an organisation. The production processes are mostly small-scale where the majority of the farmers are subsistent producers. Traders are mostly collectors and intermediaries where the influence of social relationships on agro-business is high. In such societies, looking at the socio-economic relationships between and among individuals and groups gives a good picture of LED processes. This paper argues that netchain is the best approach to use when the aim is to understand rural-urban linkages and LED processes in a locality and when the firms are quite small to a level of one person or one family. Besides, the traditional chain approaches are aimed mainly at understanding commodity chains in a business scenario. Netchain approach in this paper, however, goes beyond the business of commodity chain to include the social aspects of the relationship as they are crucial in studying rural-urban linkages and LED processes in developing countries.

Sampling methods- This study applied the principle of data saturation and attainment of quality Saunders, Lewis & Thornhill 2009) which a small sample size can achieve. Curry, Nembhard,

& Bradley (2009) recommend sample size between 20 and 30, while Kvale (1996) suggests less (between five and 25) for an interview study specially when heterogeneity and saturation are the driving forces of a research. The study provides a basis to understand the roles played by various LED actors to triangulate and generate a detailed and rich data.

The respondents were selected using the snowball sampling technique. The researcher first approached the District's Agriculture Office (DAO) where objectives were intimated and study sites selected. The participants were purposively sampled to provide representative information and valid research conclusions. Uke and Negassa Farmers' Associations (FAs) were chosen because maize and niger seed products are best grown in these two areas. In the second stage, Development Agents (DAs) of the selected sites were contacted as key informants and also to help in the selection process of informants because they are local experts. Care was taken to include research participants from different backgrounds and attributes such as farm scale (large, medium and small-scales [5]), gender (both males and females) and education. Accordingly, 30 agrarian households[6] (19 males and 11 females), nine traders (five males and four females), five millers (four males and one female), five edible oil processors (all males), and two agricultural extension workers (one from each sex) were interviewed. The names of all interviewees were codified for the purpose of presenting the data commencing with PI (Personal Interview), followed by economic activities and locations of the respondents.

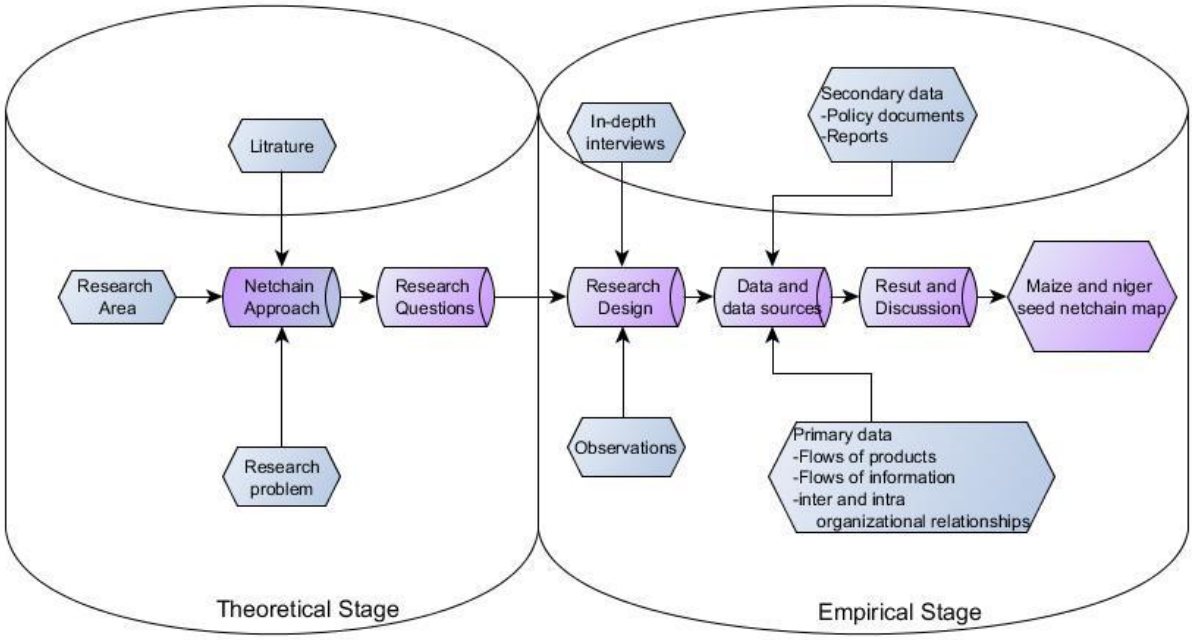
[5] According to the classification of the District's Agriculture Office, on average, large-scale, medium-scale and small-scale farmers are those who own 8 ha, 3 ha and less than 0.5 ha/farmer respectively.

[6] Four of the females and all of the males were household heads

3.3. Data Collection Methods

A qualitative approach is used in the mapping of the maize and niger seed netchain as the technique better helps in getting participants' perceptions and realities leading to a real understanding of the way in which a particular VC works (Bonney et al. 2007; Hellin, Ndjeunga, & Trench 2010; Ahenkora 2012; Donovan et al. 2013). An in-depth interview and observation technique were applied to collect data related to flows of people, production, and information between the two areas from different perspectives from November 2013 to June 2014. In-depth qualitative semi-structured interviews were used because of its ability to gather information from non-literate participants (Engelmann & Isiaho 2005). The questions were different for different participants. It is a useful tool for collecting information on how the netchain works and why it works that way (Miehlbradt & Jones 2007). The technique also enhances the capture of both the nature and strength of the relationships at an individual level, to map the chain and eventually to address the research questions (Figure 4.5).

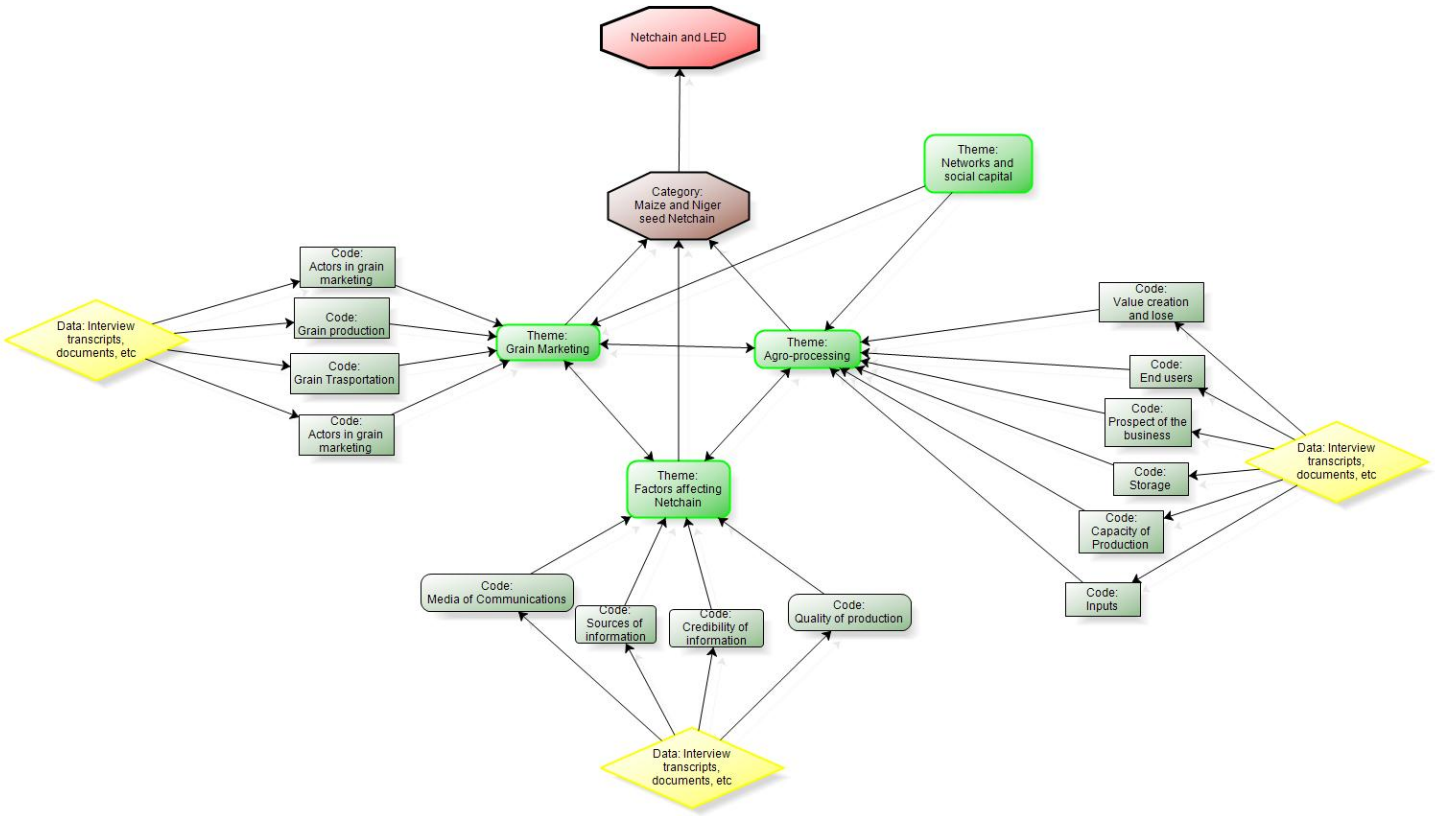
Figure 4.5 Methodological Map



3.4. Data Analysis Methods

Data from the interview and secondary sources were triangulated, converged and analysed using qualitative methods. Narrative explanations during interviews were tape-recorded and transcribed later during analysis. These audio-recordings were complemented by field notes, which included observations of both verbal and non-verbal behaviours as they occur, and immediate personal reflections about the interview. As Boyatzis (1998) proposes, all the recorded conversations were transcribed verbatim and imported into Nvivo 10 software in which codes were generated from the data, which were later collated to themes to generate a theme 'map'. The themes later became categories for analysis. The theme development was an iterative process where new themes generated and others discarded as needed to keep the research objective in focus (Boyatzis 1998; Heath & Cowley 2004). After the frequent recording cycles, many themes were clustered into categories of higher order abstractions to make sense in the context of the data (see Figure 4.6).

Figure 4.6 Example of Code and Theme Development Map



Yin (2008) principles of case study analysis including addressing all the evidence and examining major rival interpretations, focusing on the most significant aspects of the case study, and employing the researcher's prior knowledge, were used to further the analysis.

4. Result and Discussions

4.1. Agro-processing and Marketing of Maize and Niger Seed in Nekemte Town and its Hinterlands

Agro-processing even at the small and cottage industry levels is critically important in the livelihoods of people in developing countries like Ethiopia. It makes a significant contribution

to the transformation of the local economy and contributes about 35 percent of the country's agricultural Gross Domestic Product (GDP). It is an important source of paid employment with more than 50 percent share of employment in the overall manufacturing sector (Mado & Saio 2009). In this section, the netchain of maize and niger seed is discussed starting from the production, marketing, and processing; and its significance to the livelihood of the people.

a. Maize and Niger Seed Production

Netchain is an interlinked process where changes in one of its components can affect the whole chain leading to poor netchain performance and weak LED. For this reason, identifying where a value is created and where it is destroyed is quite important. Production supply to the netchain is important to keep the netchain strong and sustainable. However, many factors influence the production capacity of the farmers in Guto Gidda district. In the District, out of 30 farmers interviewed, 20 (67 percent) were small-scale farmers[7] owning less than 1.5 ha of farmland. Large-scale farmers possessing more than seven ha comprised only 10 percent and the rest 23 percent (having two to five hectares) are medium-scale farmers.

Evidence from the Districts Agricultural Office also shows that shortage (or lack) of farmland, low utilisation of yield-enhancing technologies and a traditional manual farming system are among the factors influencing the full potential of farmers' production. These conditions often do not support a strong agro-processing sector as it requires large quantities of a consistent supply of quality raw materials. The average farm size (crop area per holding) in Ethiopia in general (0.96 ha) and in Oromia in particular (1.15 ha) is very small by international standards

[7] According to Guto Gidda District agriculture office, on average, large-scale, medium-scale and small-scale farmers own greater than 5 ha, between 1.5- 5 ha, and less than 1.5 ha respectively.

(Headey, Dereje & Taffesse 2014). According to Rashid, Getnet & Lemma (2010), about 94 percent of Ethiopian farmers rely on less than five hectares of land, of which 55 percent cultivate less than two hectares.

The capacity of production of small-scale farmers is seriously challenged by increasing prices of agricultural inputs including fertilisers and seeds that they are unable to afford. This led to using no or below the required inputs and eventually low yield. The other challenge for the farmers production is the weeds, typically Dodder (a parasitic weed which wraps itself around plants and destroys the plants) attacking mainly niger seeds. An interview with a farmer in Negassa FA summarises these problems as follows:

> *We have no ox for ploughing and no money to buy fertilisers and seeds. The government used to loan us fertilizers which we paid later, but now it stopped... Recently, Konchi (Dodder) is becoming another threat to our niger seed farm. It does not die by manual weeding, rather regenerates* (PI with a small-scale farmer in Negassa FA, 2013/14).

The traditional manual farming system is another cause factor for the low productivity in the District. Particularly in Negassa FA, there is no mechanised farming system using machines for cultivation and harvesting. The farmers use a locally available wooden and ox-drawn plough accompanied by simple hand-held digging sticks and hoes to cultivate the soil (Figure 4.7). In Uke FA, however, some large-scale farmers[8] use tractors for soil cultivation and whose production (especially maize) is mostly for non-local markets. They transport to other Towns

[8] Majority of the large-scale farmers are investors usually residing out of the rural Farmers' Associations. The farmers complain that the government confiscated their land under the cover of investment and gave it to the investors where these farmers are forced to perform as daily labourers in the extensive farms.

such as Nekemte and Shashemenne, and even to outside the region (Bahir Dar and Dese in Amhara region) where they can get better prices. Most large-scale farmers' problems include decreasing soil fertility, delaying of input supplies and poor seed quality, lack of harvesting machines and bad weather.

Figure 4.7 Small-scale Farmers Ploughing manually in Negassa FA

The input supply also does not consider the demands or interests of the farmers. The farmers know the characteristics of the soil and the seed variety that best suits to that particular soil type from their long experience in the field. However, the government asks them to buy all seed varieties that it provides regardless of the demands of the farmers. Those who afford to buy the fertiliser therefore, complain lack of fertiliser of their interest. An interview with a farmer from Uke FA illuminates this:

> *…if I need BH-540 maize variety, they insist me to buy Shone variety as well. But we know which seed variety gives better yield and which is not* (PI with a small-scale farmer in Uke FA, 2013/14).

As a result of lack of inputs of interest to them, the producers are reluctant to register for the purchase of those inputs and ended up in subsistent production leading to poor netchain performance. The efforts of the DAs to help the farmers technically to improve their production are not quite fruitful. An extension worker in Negassa FA reported that she gives continuous follow-up and advice to the farmers on how to use the right seed varieties and the right types and amount of fertilisers, yet still production is not increasing.

In her own words:'*it is a mystery even for me as a professional why there is still low production even for those who use agricultural inputs*'. She blames the district's agricultural office for failing to address the problem despite her frequent reports, while the office criticises the DAs. This shows that there is little known about the soil characteristics (due to lack of research done on the soil) to identify the best seed variety. Besides, a report from the BoFED of the region discloses other factors contributing to the low productivity in the district including fluctuation of weather condition, land degradation, lack of crop diversification, an insufficient dedication of agricultural expertise, and absence of local research (BoFED 2013).

There is no input (seed and chemical fertilisers) provision for niger seed production and consequently, its production is considered as a secondary crop among the smallholder farmers in the district despite its popularity among the farmers in the other parts of the region. It also constitutes 50 percent of Ethiopia's oil seed production (Burnette 2010). This has seriously affected the supply of the niger seed and eventually the netchain and LED.

b. Maize and Niger Seed Marketing

Because of the subsistence production in the district, the farmers have few or no extra grains to sell inhibiting grain marketing, another component of the netchain. However, in order to buy agricultural inputs, pay land tax, loans, and school fees for their children, and meet other financial obligations, both the small and medium-scale farmers need to sell some of their maize products and much or all of their niger seed products at farm gates or market centres in Nekemte Town and Uke district Town.

This sale, however, is challenged by the immediate sale of yields after harvest, lack of reliable market information and waste. As the majority of the farmers sell at peak times, the prices significantly decrease in the market and the farmers end up with a low return because there are more supply and less demand during this time. When the farmers sell what they have for the market, the price increases because of low supply. A study on the maize market in Ethiopia shows that 85 percent total marketed volume (60 percent during the first three months and 25 percent in the next three months) is sold during the first six months after the harvest, when prices peak and farmers are left with only 16 percent of the market volume (Rashid, Getnet & Lemma 2010). During the lean period, the grain market is usually supplied by a few large-scale farmers and collectors and thus the benefit from higher prices does not accrue to smallholders. Large-scale farmers produce mostly for markets at the locality or beyond.

The grain marketing actors linking the farmers with the processors and consumers include intermediaries, traders (retailers and collectors) and Farmers' Cooperative Unions. These relationships and communications have never been the same throughout the actors and times.

They depend upon the need for communication and the type of actor taking part in the relationships. For this, there is a need to have a picture of strengths and attributes of these marketing linkages which can be measured quantitatively and qualitatively (Storer & Taylor 2006). Getting this picture would make easy the mapping of vertical and horizontal linkages simultaneously (Figure 4.9). In this study, the strengths are quantified using scales ranging from zero (no) to five (excellent) and the attributes are scored qualitatively in different ways as depicted in Table 4.1.

Table 4.1 Relationship and Communication in the Maize and Niger seed Netchain

S/N	Relationship and communication	Actors in the relationship and communication	Qualitative parameter	Quantitative parameter
1	Nature of relationship	Farmers, Traders/ intermediaries/ collectors, Processors, Cooperative Union	Cooperative vs Adversarial	
2	Nature of communication	Farmers, Traders/ intermediaries/ collectors, Processors, Cooperative Union	Formal vs Informal	Scale:
3	Frequency of communication	Farmers, Traders/ intermediaries/ collectors, Processors, Cooperative Union	Regular vs Irregular	0- No 1-Very poor
4	Price negotiation	Farmers, Traders/intermediaries/ collectors, Processors	Hard bargaining vs open price negotiation for benefit and risk sharing	2- Poor 3- Fair 4- Good 5- Excellent

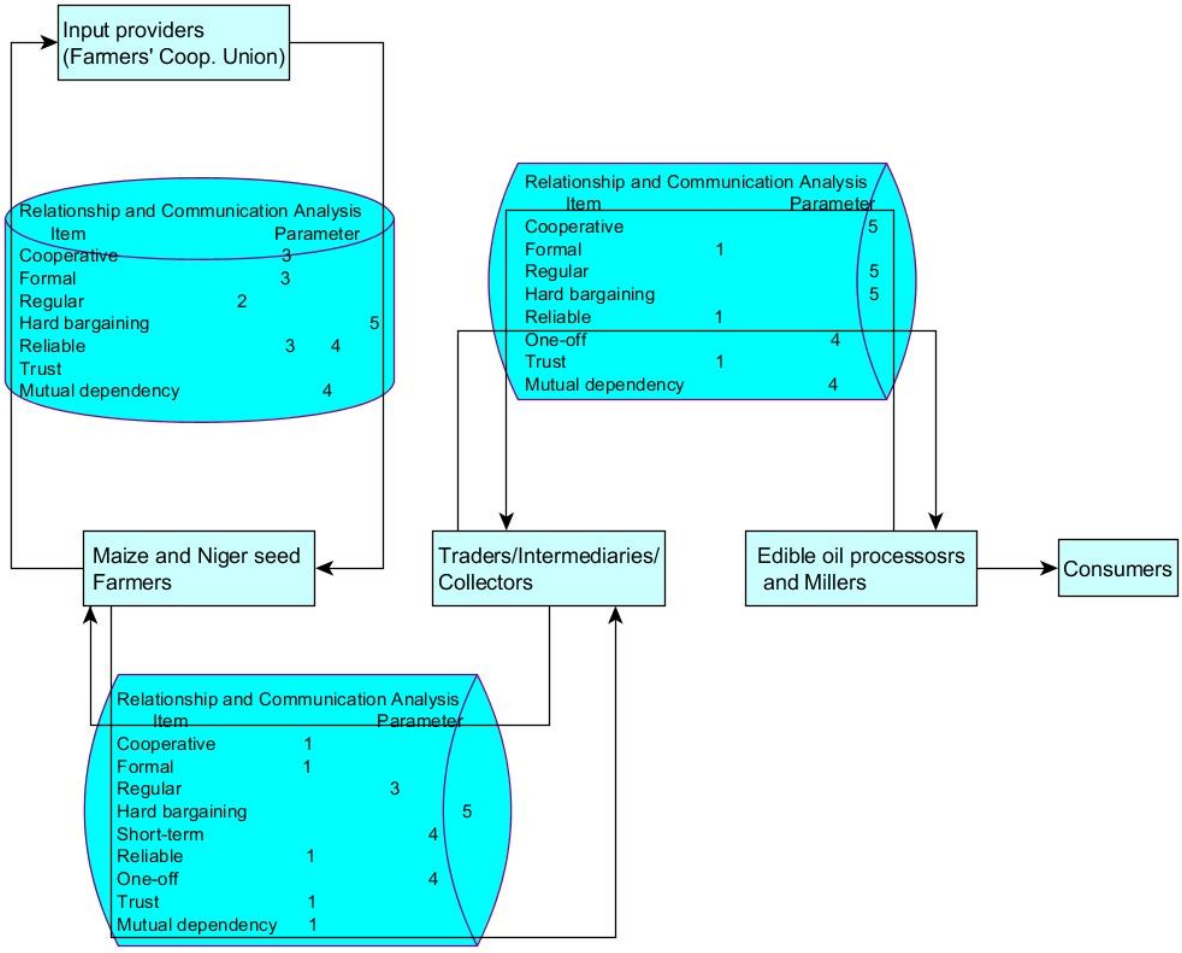
5	Commitment	Farmers, collectors,	Traders/intermediaries/ Processors	Short-term vs long-term transaction
6	Trustworthiness	Farmers, collectors	Traders/intermediaries/	Trust vs mistrust
7	Importance of relationship	Farmers, collectors	Traders/intermediaries/	One-off vs continuous (for future transactions)
8	Power	Farmers, collectors	Traders/intermediaries/	Mutual vs one-sided
9	Information	Farmers, collectors,	Traders/intermediaries/ Cooperative Union	Reliable vs unreliable

Source: Author's assessment, 2014

Based on the information in the table, the netchain of maize and niger seed marketing is shown in figure 8. This diagram shows the agro-processing of the two products emphasising types and strengths of the inter-group relationships and communications (the intra-group relationship is shown in Figure 4.9) in the netchain. The result shows that the farmer-trader grain marketing relationship is adversarial, hard bargaining (price determined by traders), and one-off, and that there is mistrust among others. The communication between the two groups is also represented as informal and irregular. Except for the formal communication between farmers and the Cooperative Union, which is based on the Union's code of conduct, all the information flows along the different groups of the chain are informal. There is also fair social capital (trust) governing the relationship between these two groups, which is very poor between farmers and traders and between traders and processors. This may indicate the need for intervention in the

areas of reliable market information provision, participatory price setting and communication infrastructure improvement to make the entire stakeholder (especially the farmers) beneficiary from the netchain.

Figure 4.8 Relationships and Communications Between Different Groups of Netchain Actors (adapted from Storer & Taylor 2006)



The Cooperative Union in the locality used to collect grains from farmers to later sell at a better price and distribute the profit among the members. But the Union currently appears dysfunctional as they select the type of varieties they buy from the farmers even though it is they who provides the seeds. For instance, the Union provided *Shone* maize variety to farmers in the last production season. Eventually, though, it refused to collect the final product from

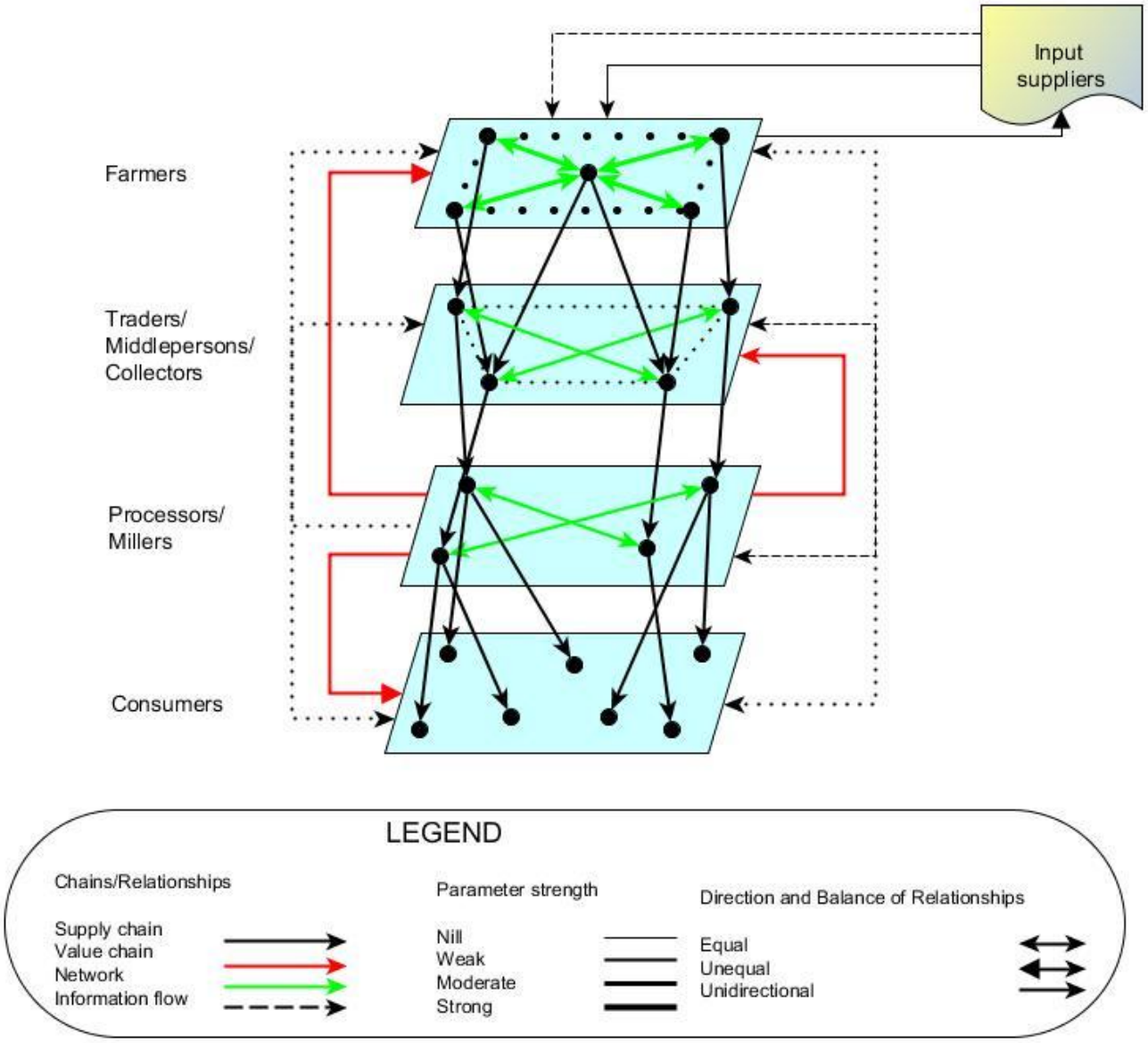
them claiming the seeds appeared rotten on their tips. The Union complains it will not get a buyer for this particular variety. This shows the Union's failure to support the farmers as it is supposed to.

Figure 4.9 shows a diagrammatic representation of maize and niger seed netchain where the strengths, directions and balances of the vertical and horizontal linkages are depicted simultaneously using arrows of different colours. The traditional chain analyses fail to show these complex vertical and horizontal linkages in a single picture. The chains are observed along upstream and downstream flows of people, production, finance, and information between producers, traders, processors and finally consumers. The networks indicate the horizontal interrelationship (i.e., the social aspect which is used as a 'cohesive' device) between and within the members of the netchain.

The strengths of the linkages in the netchain are affected by the key actors' access to market information. To get good prices, farmers need reliable and up-to-date market information. Their sources for the information include fellow farmers, friends, traders, and the Cooperative Union. But (small-scale) farmers mostly get market information at the market spots by going over as many scales as they can to sell their products to whoever gives them better prices. These relationships can be explained as *pooled, sequential, and reciprocal* interdependencies (O'Toole Jr & Montjoy 1984). The *sequential* and *reciprocal* interdependencies are represented by single-headed and green double-headed arrows respectively. IT induces horizontal *pooled* interdependence among both buyers and suppliers and is depicted in dashed lines.

Figure 4.9 Netchain Representations of Maize and Niger Seed in Guto Gidda District

(Author's assessment, 2014)



Farmers produce maize and niger seed and sell them to traders/intermediaries/collectors. They transport their products using donkeys, and mule-pulled carts and by carrying it themselves on their backs. A few farmers make an agreements with traders even before the grain is harvested, in which the traders come to the farm gates and collect the products using their own transport.

Processors buy the grain either from the farmers or traders/collectors and produce maize flour and edible oil for consumption. This shows *sequential* interdependencies where direct relationships between firms are organised through serially vertical linkages and the farmers' output is the traders' input, and the traders' output is the processors' input. Nonetheless, in terms of the flow of information, reciprocal relationships are observed in the sense that market-related information flows from one layer to the other and vice versa (Lazzarini, Chaddad & Cook 2001). The influence of the mobile telephone has facilitated the communication of the farmers with the rest of the layers in the netchain strengthening the sequential interdependence (Cleary 2009). However, the majority of the small-scale farmers have no accessibility to this technology as they cannot afford it.

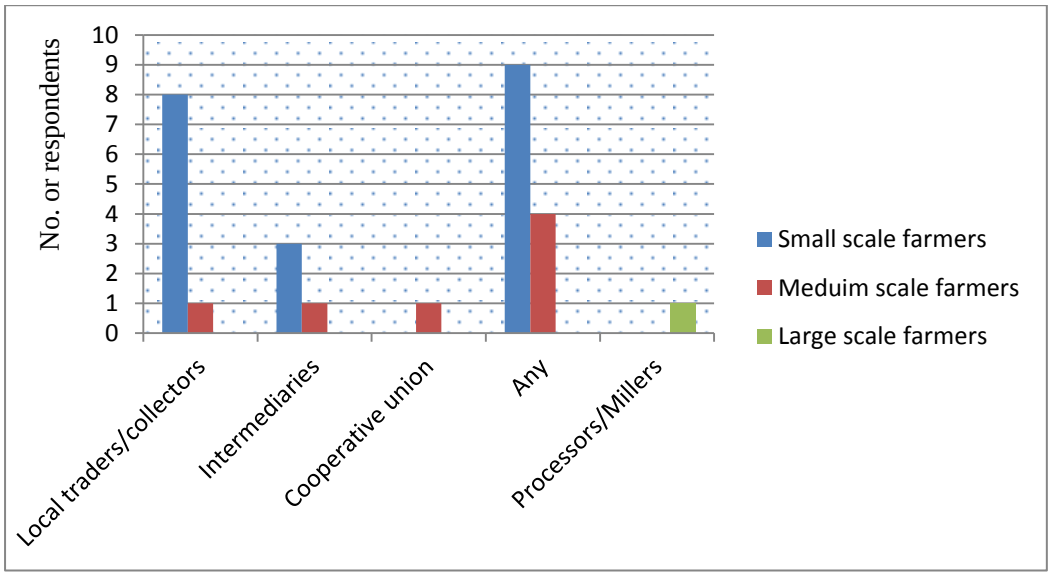
The intra-relationships among the farmers indicate strong *reciprocal* interdependence representing horizontal linkages because of the influence of local government institutions such as development brigades and Cooperatives and indigenous institutions like *Afooshaa*[9] where farmers have regular discussion on how to increase production, share experiences and market information with each other. This developed strong ties among themselves leading to knowledge co-specialisation (Lazzarini, Chaddad, & Cook 2001). Traders (and collectors) also display moderate *reciprocal* relations among themselves at the trader layer because they have informal agreements related to areas from which each of them would limit their procurement activities. In such cases, social norms regulate their business behaviour (Cleary 2009). *Pooled* relationship is displayed among the processors as they perform their activities independently with sparse and indirect relationships. But outside the business, they also have strong social ties through their traditional institutions. A well-established institution can change *pooled*

[9] *Afooshaa* is traditional social institution with the purpose of supporting each other during occasions like mourning and weddings.

interdependence to reciprocal interdependence if there is knowledge exchange among the suppliers. In *pooled* interdependence, agents are more likely to have diverse knowledge and resources that can be brought to the network because agents are usually sparsely connected through weak ties.

Closely scrutinising the trade relationships, the majority of the small-scale farmers do not need fixed *maamila* (clients) to sell their produces. Most of the trade relationships are a one-off, wherein a better price is more important than the establishment of a relationship for future transactions. As such, 45 percent of the small-scale farmers sell their maize and niger seed product to anyone of the local traders/collectors, intermediaries, Cooperative Unions or processors/millers. This figure is followed by trading with the traders/collectors (Figure 4.10).

Figure 4.10 Maize and Niger Seed Chain in Guto Gidda District



Farmers are sceptical about their trade relationship with the local traders/collectors and intermediaries as they think the traders cheat them by giving them incorrect market information. An interview with a small-scale farmer in Uke goes as follows:

> ….*sometimes traders come from other areas to buy maize from this market offering us good prices. But we do not have an opportunity to directly contact them as the local traders and intermediaries interfere between us to make a profit* (PI with a small-scale farmer in Uke FA, 2013/14).

The local traders and intermediaries distort the market information which significantly affected the farmers' income and the netchain of the locality. They bridge the farmers to the traders coming from other bordering regions, such as Desse and Bahir Dar in Amhara region. They collect from the farmers (Figure 4.11.a) and sell to these traders making a profit, which the farmers themselves would do if they had real market information. There is also a power imbalance between the traders and farmers. The farmers have no opportunity to determine the market price.

Figure 4.11 Maize Collected by Collectors from Farmers and Small Collectors at Uke Local Market

In the netchain, local collectors collect grains from the farmers at the market centre. In some cases, intermediaries may get into the farm gates and buy from the farmers to self-transport to the market and sell. These people usually get the money from higher order traders/collectors to do the business implying reciprocal relationships among them. But eventually, the collectors have to sell back to them which show the dominating power of the higher-order traders. The collectors store the grains in their warehouses (Figure 4.11.b) and call the traders (mainly from Nekemte Town) to come and buy which shows benefits sharing among the traders. Niger seed processors also get the niger seed from the surrounding farmers. Mostly the farmers sell at the market centre in Nekemte Town to the collectors who later sell to the processors. This is because niger seed is mostly produced by small-scale farmers who produce and sell in small quantity. Sometime, however, the processors buy from the farmers directly.

The only occasion where the intermediaries do not interfere is in the farmer-consumer trade relationship. In this small-scale transaction, both the producers and consumers benefit because there is no commission incurred in between the two. The low-income Town residents directly buy the grains (maize) from the farmers (Figure 4.12.a), clean it themselves (Figure 4.12.b) and take it to millers (Figure 4.12.c) for processing; these are usually located close to the marketplaces. This helps the consumers to get the grains processed easily.

Figure 4.12 Consumers Buying Maize from Farmers, Cleaning and Milling at One Place in Nekemte Town

Not all traders are opportunistic in their trade relationship with the farmers. There are also occasions when traders provide loans to farmers during times of financial difficulties, such as buying fertilisers, which the farmers repay after selling their product. The farmers usually sell their grains to the trader who made the loans to them in difficult times showing the level of trust between them as there is no formal agreement between them. The moral obligation, which is the result of the frequent communication between the farmers and traders, increased the mutual understanding between them (Bonney et al. 2007) and strengthened the relationships. Failure to abide by the informal agreement may result in mistrust for another round of lending by the traders.

Social capital is an important element governing the netchain as an interview with a collector in Uke market centre underlines:

> *Usually, farmers entrust their grains to their fellow farmers to unload it with me. Later, they come; we weigh together and calculate the price as per the day's market price. If they do not like the day's price, they can still keep it for another market day….kindness, good conduct, and trust determine my future business* (PI with a collector Uke market centre, 2013/14).

The above script shows the role of trust and social relationships in choosing a trade partner. It also shows how a relationship is maintained for future trade, which helps the traders obtain a continuous supply from the farmers. The traders maintain the relationship through techniques such as honesty as well as lending them cash. These trust-based trade relationships could sometimes grow to the level of friendship like godparents and in-laws.

c. Maize and Niger Seed Processing

Processing is the third important value-creating element in the netchain study. Small-scale agro-processing is particularly important in poverty reduction as it builds on local assets such as indigenous knowledge and skills and local natural resources. It also plays a valuable role in LED processes through improving incomes by increasing employment opportunities and thus improving food security through food availability. Maize milling is quite common in both Nekemte Town and rural areas in the district because mills can operate with small investment and in the absence of electric power. Edible oil processors, however, are confined to Nekemte Town as they need bigger investment and associated infrastructure mainly electricity.

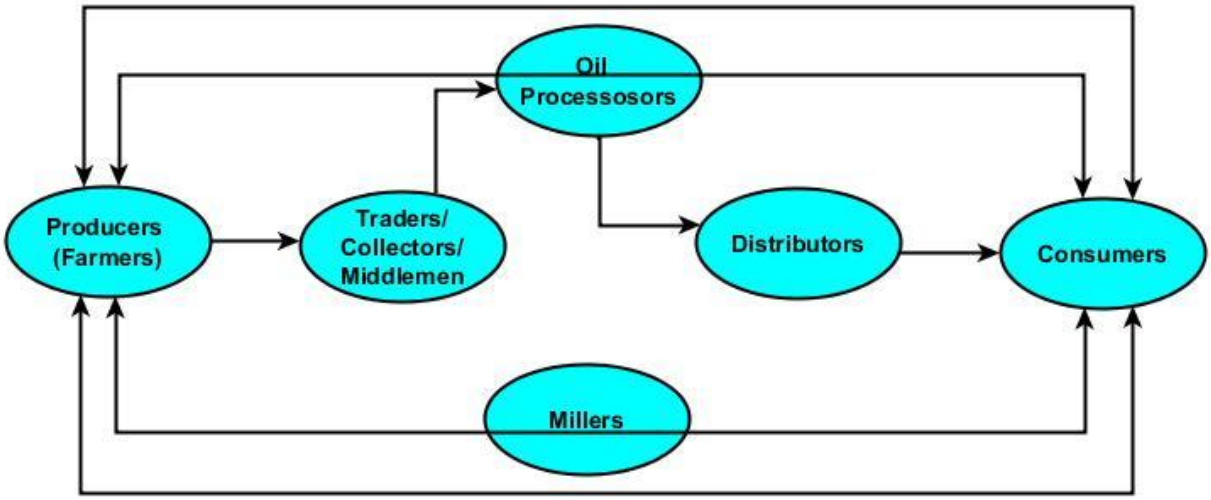
Agro-processing has the potential of strengthening rural-urban linkages for the benefit of both. Strong rural-urban linkages can also stimulate agro-processing, which the processors in Nekemte Town understood. In an interview with a processor concerning the requirement to start a business, he underlined the contribution of the rural-urban mutual interrelationship for his business to start and sustain:

> *….I started doing oil processing after thorough market assessment...This is a mutual benefit. We make profit from the processing, and the farmers get benefit from selling their niger seed and buying processed oil and its leftovers for their food and animal fodder respectively* (PI with an edible oil processor in Nekemte Town, 2013/14).

Consumers of niger seed oil come from both rural and urban areas in the district and bordering districts such as Sasiga, Diga, Sire, and Wayu Tuka. From these areas, traders come to buy from the processors in Nekemte Town to later sell at their local market. There are also consumers who directly buy from the stores of the processors. The maize flour is used for making bread, porridge, and *Buddeena* (flat and wide bread) among others. The left over products from the maize processing is used for animal fodder and firewood.

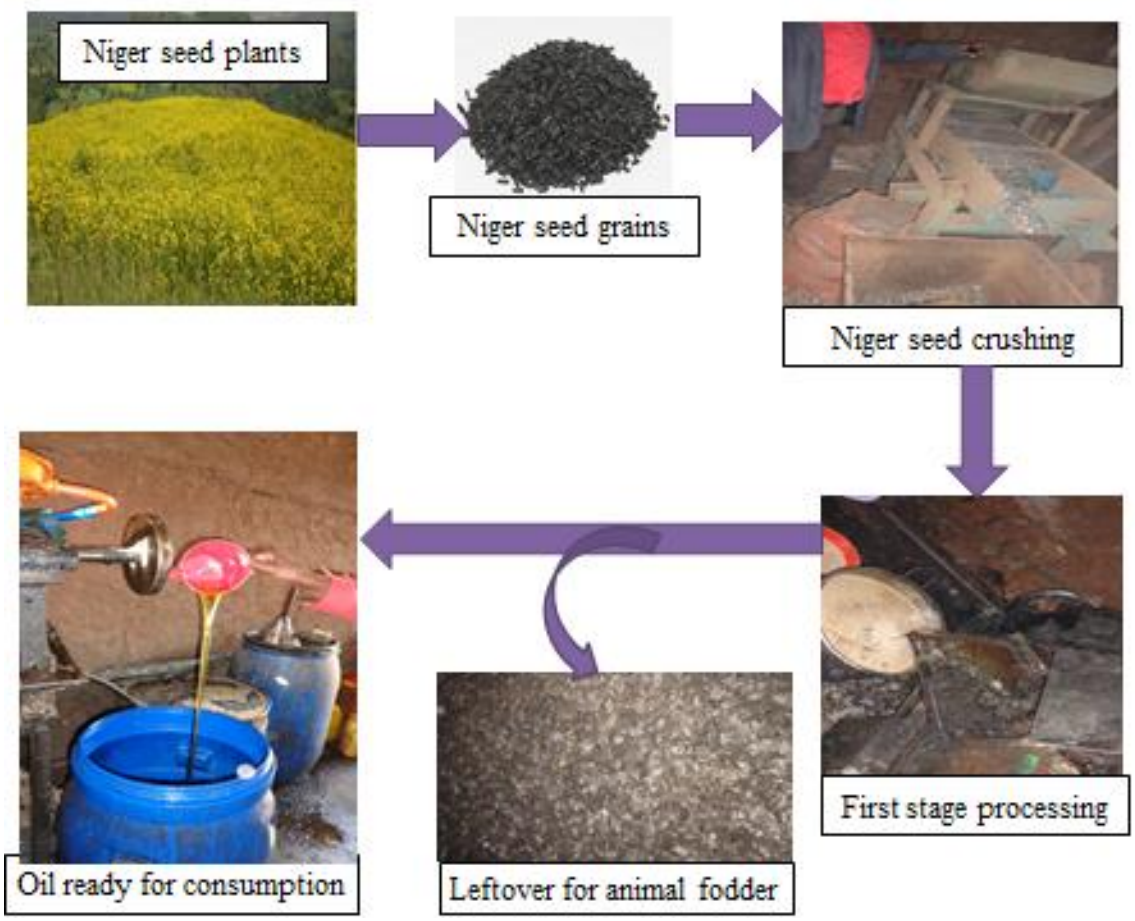
Likewise, niger seed agro-processing starts from the farmers producing and selling to consumers, traders and processors. There are also licensed traders trading in only niger seed. These traders sometimes buy/collect and transport to sell at better prices at Addis Ababa (Finfinne) market, the capital city of the country. Processors also buy from the farmers to locally process it into edible oil (Figure 4.13).

Figure 4.13 Maize and Niger Seed Processing Chain Map (Author's Assessment, 2014)



Edible oil processing is more complex compared to maize milling because there are intermediate role players in the chain, and the processing also needs more care. Consumers usually buy directly from farmers in small amounts to roast and consume. The parched grain of niger seed can also be crushed at home to make a traditional cakes or can be fried or used as a condiment. Whole plants, in the pre-flowering stage, are used as green manure. Extracting niger oil may include a combination of warming, grinding and mixing the niger seed with hot water followed by hand centrifugation in a container. It can also be crushed in small cottage expellers (like the one in Nekemte) and large oil mills. Also farmers fattening animals buy the leftovers to feed their cattle (Figure 4.14).

Figure 4.14 A Simple Diagram Showing Oil Processing from Niger Seed in Nekeme Town



According to the processors, consumers demand for this locally processed edible oil from the niger seed is high because of the flavour and quality of the oil. This processing is dominated by traditional and small crushing facilities with inadequate production capacity, low hygiene and lack of safety standards (Figure 4.15). Lack of appropriate packaging and absence of labelling standards is also another feature of oil processing in the study area. Because of the shortage of supply from the small-scale farmers, the processors are required to produce high stocks of oilseeds during peak production and supply season and store for year-round, operation leading to the high working capital.

Figure 4.145 Oil Processing in Nekemte Town

Oil processing from niger seed in the Town is not without challenges. Most of the challenges are associated with frequent power outages, seasonality of supply of niger seed, financial difficulties and heavy taxes by the government. An interview with a processor concerning the sustainability of the business asserts '*…it is not really profitable, but I will continue the processing'*. The processors do not like the interference of the government to regulate the market price. When the supply of edible oil is low and the local processors are unable to satisfy the consumer demand, the government encourages duty and Value Added Tax (VAT) free import of palm oil which helps the consumers buy at a fair price. This government policy is considered (by the processors) as a bottleneck for the development of the local processing industry as the locally produced oil has not demand that it used to have. The oil they processed is therefore kept in stock without selling. Therefore, when their warehouse is full, they stop processing and sometimes the processing machine remains idle for weeks or months, making the processing business less profitable. However, the local government claims price regulation is important because the local processors have no full capacity to meet the domestic edible oil demands.

Values in value chain study, which is an integral part of netchain analysis, can be destroyed in many ways and at different stages of the chain. At the post-harvest stage, for instance, the

traditional harvesting and storage systems have greatly contributed to the losses in grain quality, affecting the overall netchain and LED. Maize quality is affected during harvesting and shelling, which is further depreciated by poor storage facilities (Figure 4.16.a). Farmers use locally made on-farm storage such as *Gombisaa10* which may expose grains to different types of damages, including weevil and rodent attacks causing substantial losses of stored grains. Cleaning of the maize to remove foreign material such as husk, straw, dust, and sand is also done manually (Figure 4.16.b).

Figure 4.16 Traditional Storage Facility of Maize and Manual Cleaning in Uke FA

Niger seed is a very sensitive product which needs close follow-up at the time of harvest. The seeds can easily shatter during hot days and thus they have to be harvested early in the morning. Plants are cut by sickle close to the ground, then bundled and stacked in the field to dry for a few days. Following the drying, farmers thresh the seeds by grasping the stalks and beating the seed heads on a traditional threshing ground in the field. In some cases, oxen may be used to tread on the harvested plants in the field. Though tarpaulin or plastic sheets are used for this process, waste is expected as it is done manually which makes it difficult to thoroughly separate the impurities. Besides, there is no technologically supported mechanism of quality

[10] *Gombisaa* is a cylindrical shaped container made up of a timber pole and woven sticks with a flat or conical bottom and roofed with conical thatched grass.

control. When buying, traders check the quality of the products by piercing into the sacks of the grains in three randomly chosen parts (at the top, centre and bottom), take samples and visually determine the quality, which does nothing apart from basic differentiations such as white versus yellow maize or insect infested versus clean niger seed. There is no established quality control in the agro-processing.

5. Summary and Conclusions

This agro-processing is playing a significant role in linking urban and rural areas for the development of the locality. However, the traditional approaches of VC, SC and networks used so far to study these relationships lack simultaneous analysis of the prevailing vertical and horizontal linkages. While the first two are concerned with vertical linkages, networks scrutinise the horizontal linkages. To study rural-urban linkages and LED processes particularly in developing countries where subsistence production and small-scale industries dominate the economy, the significance of capturing both the linkages simultaneously is crucial. Netchain analysis in this study made possible to fill in this gap because it clarified the complex interactions between and among farmers, traders, and processors that influence the livelihoods of the people. It also enhanced the drawing of the maize and niger seed netchain map, easing the understanding of the flows of production, people, and information between Nekemte Town and its surroundings. Using the netchain analysis, it was possible to identify the bottlenecks hindering the success and sustainability of rural-urban linkages and LED processes in the study area.

The result of this study shows that inefficient agricultural practices; and high costs and limited accessibility of inputs negatively affected the production and processing, and thence the

netchain of agricultural products in the study area. Shortage of farmland is also a critical problem hindering the full potential of the producers where the smallholder farmers suffer from low productivity and ended up in subsistent production. The grain market is dominated by intermediaries distorting prices leading to volatile and unpredictable price structures. Lack of trust between producers and traders is another key constraint. Processing is done using traditional and crushing facilities characterised by inadequate capacity, low hygiene and lack of safety standards. The seasonality of the supply of niger seed is another bottleneck for the edible oil processing business.

Maize and niger seed netchain is also influenced by poor infrastructure to facilitate the netchain in areas of market information and hard infrastructure linking producers and processors. Market information is crucial in the netchain as this helps the farmers sell their products at better prices and get returns from their production. It also helps processors get the required raw materials to process. The low quality of the oil processed shows the lack of sufficient attention from the local government to the sector. There is a general lack of regulatory standards for edible oil processing and maize grain marketing negatively impacting LED. Strengthening the linkages between the netchain stakeholders (producers, traders and processors) is critical to the success of agro-processing enterprises.

On top of its academic significance, this paper may contribute to development policy recommendations to use netchain approach to analyse rural-urban linkages and LED. This is particularly important in developing countries where there is a strong influence of traditional and indigenous institutions on LED processes. In such societies, social capital plays an important role in their production processes. To get full benefit of the importances of rural-

urban linkages to LED, there is a need to implement a policy framework encouraging the netchain which may include: a) enhancing production by supporting the farmers (particularly small-scale farmers) to produce more through modern agriculture technologies and eventually supporting their livelihoods, b) advancing market information access to all the stakeholders in the chain, and c) extending the basic infrastructure between and within rural and urban areas including road, electric power, and IT among others to accelerate the agro-processing. The current theoretical framework of rural-urban linkages and LED in Ethiopia can be helpful to move forward towards its implementation.

Chapter 5 Local Institutions and Local Economic Development in Guto Gidda District, Oromia Region, Ethiopia

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1. Introduction

Local economic development (LED) refers to the processes in which local development actors (the public and private sector organisations and individuals) seek to grow local economies, increase local employment and reduce unemployment, attract investment, retain and expand existing industries, and connect them to extra-local value chains (Wekwete & Chancellor 2014). Institutions—the rules or norms that guide people's actions within societies (North 1986)—make a well-documented contribution to these LED processes (Amin 1999; Farina & Zylbersztajn 2003; Dobler 2009; Rodríguez-Pose & Palavicini-Corona 2013; Abate 2014; Pike et al. 2015). They do this chiefly through playing a central role in mobilizing resources and regulating their uses for the benefit of the local economy (Uphoff 1992).

Institutions are typically categorized as either formal or informal. A formal institution is conceptualized as a "hard," codified and written form of a system of government and governance. An informal institution refers to "soft," tacit, and unwritten community institutions (Rodríguez-Pose 2013; Pike et al. 2015). According to this definition, formal institutions are often initiated and run by the government or state (government institutions). Acemoglu et al. (2005) make the point that government institutions are political institutions that determine not only the use of political power but also which groups hold the power in society. These government institutions are rules and procedures that are created, communicated, and enforced through channels widely accepted as official.

Informal institutions are often community initiated institutions and are identified in this study as indigenous institutions. Indigenous institutions are based on socially shared rules that are created, communicated, and enforced outside of officially sanctioned channels (Helmke & Levitsky 2004). They are characterized by the use of self-enforcement mechanisms such as

obligation, expectations of reciprocity, internalized norm adherence, boycotting, threats and the use of violence (Jutting et al. 2007). Indigenous institutions can be economic institutions with functions such as establishing property rights, facilitating transactions and allowing economic cooperation (Wiggins & Davis 2006). According to Acemoglu et al. (2005), economic institutions are important because they influence the structure of economic incentives in society.

This paper studies these different kinds of institutions in Ethiopia's Guto Gidda district, with reference to the perspectives and experiences of a range of local development actors. It aims to explore the roles the local institutions play in LED processes in the study area. Using institutional analysis of a case study, it addresses the question of what sort of local institutions are relevant to LED and why. The study also assesses how the indigenous institutions interact with the government institutions and the effects of these interactions on specific LED actors.

Empirical data from the field identified three different types of local institutions: a) local government institutions, b) indigenous institutions and c) the Farmers' Cooperative Union (FCU). Through in-depth interviews, the study also observed four different kinds of institutional relationships: a) complementary, b) accommodating, c) substitutive, and d) competing. The study also found that local development actors prefer indigenous institutions to the other types of institution (particularly the government institutions) because of the more easily accessible services the indigenous institutions provide. The indigenous institutions are also less reliant on ruling party affiliation. Further, the indigenous institutions facilitate social capital, stimulating mutual collaborations in local livelihoods. The study also identified that complementing and accommodating institutional relationships foster LED as the two types of institutions collaborate in LED processes. Substituting and competing institutional relationships weaken LED processes.

The rest of this article is organized as follows. The next section presents a brief review of local institutions and local economy. The third section describes the study area and methodology applied. The fourth section presents results and discussion, followed by a summary and conclusion in the final section.

2. Local Institutions and Local Economy

Both the government and indigenous institutions are crucial determinants of economic growth and development (Flachaire et al 2014). Each has a domain in which it performs best in LED processes and the two types of institutions also interact with one another in LED processes. Institutions in general play key roles in securing property rights, creating an investment friendly climate, enhancing social returns, and establishing incentive frameworks to encourage profit maximization and discourage rent-seeking (Khan & Javid 2015). They can also facilitate economic development by reducing transaction costs and advancing competitive processes to ensure efficiency (De Soysa & Jűtting 2006; Jutting et al. 2007). The local government institutions create an opportunity for decentralization of powers, responsibilities and resources to a local agency (Wekwete & Chancellor 2014). They can diagnose LED circumstances and issues; prioritize developments; formulate LED strategies in line with the local realities; generate, pool, and align resources and investments; and evaluate the impacts of interventions. Further, the local government institutions play a channeling role both vertically to provide a local voice in dealing with super-local tiers and horizontally in coordinating and mobilizing other local actors in the public, private and civic sectors (Pike et al. 2015).

Indigenous institutions help LED processes in multiple ways. They strengthen social capital, "bonding" local actors into existing patterns of behavior and relational social networks, connecting local actors to extra-local sources of growth and innovation (Pike et al. 2015).

Social capital is the base for the establishment of indigenous institutions (Knowles 2006) and formations of groups in the institutions are based on mutual trust among the members. These institutions tend to group people with either a similar background to create "bonding" social capital or with a different background together to create "bridging" social capital (Woolcock & Narayan 2000; Beugelsdijk & Smulders 2003).

Indigenous institutions also play various important roles. They promote mutual help and family assistance. They also provide credit and saving, community-based insurance schemes, and funeral services. The moral authority of the village elders helps mediate and resolve disputes. The mutual trust among the actors in the indigenous institutions enhances anonymous market exchange and decreases the need for external enforcement. In high-trust societies, people tend to depend less on formal institutions than informal institutions to enforce agreements. For instance, informal credit markets dependent on strong interpersonal trust to facilitate business where there is a shortage of well-developed formal systems of financial intermediation or bank credit (Knack & Keefer 1997).

Mutual collaborative work between local development actors is important in LED processes. Evidence shows that states, firms, and communities alone do not possess the resources needed to promote broad-based and sustainable local development, and hence, these different kinds of local institutions need to complement each other (Woolcock & Narayan 2000; Wynne 2007). Institutional functional linkages, such as common meeting schedules and forums, facilitate development by avoiding duplication and encouraging cooperative activities. The effectiveness of government institutions is highly influenced by the societal norms and attitudes, and existing levels of social capital of the indigenous institutions (De Soysa & Jűtting 2006). Further, the performance of each type of institution may be improved when they work together (North 2003;

Lekovic 2011). Thus, it is important to observe the relationships between the different kinds of local institutions to better understand the role the institutions play in LED processes.

Scholars argue that a successful institutional framework for development involves the interaction of government and indigenous institutions, as well as the conditions to which the institutional framework applies. Playing a game in which the players know the rules by which the game is played, but the course of the game need not be explicitly identified only by formal rules, i.e. the government institutions (Marosevic & Jurkovic 2013). The results of these linkages could be positive (if they are compatible), which promote the practices of both the institutions; or negative (if they are incompatible) (Zenger, Lazzarini, & Poppo 2002).

For a strong LED, there needs to be a positive-sum interaction rather than a zero-sum relationship between the government and indigenous institutions (Uphoff & Krishna 2004). Local government institutions may facilitate, encourage, and engage productively with multiple independent actions initiated by organized local citizens. What the indigenous institutions do in a particular development context and what these actions are able to achieve has a lot to do with what government institutions allow, enable, facilitate, support and endow. Good government institutions make a path for growth-friendly indigenous institutions.

Furthermore, in countries where the central government is weak, the indigenous institutions have the capacity to execute core functions of government and mediate relations between local communities and the state. The incompatible relationship between the two, however, could result in undesirable consequences for LED. For example, Mcloughlin (2012) argues that there are considerable challenges in addressing fragility when dominant social structures and local institutions perpetrate violence and vulnerability. Thus, understanding how and when local

governments become inclusive and function effectively in LED processes requires understanding the interplay between the government and indigenous institutions.

Four different types of institutional relationships are identified in the literature: complementary, accommodating, competing, and substitutive (Helmke & Levitsky 2004; Lekovic 2011; Vu, Zouikri & Deffains 2014). *Complementary* interaction is observed when indigenous institutions "fill in gaps" left by formal rules that do not explicitly deal with certain problems through their values, norms, and other routines. *Accommodating* interaction occurs when indigenous institutions create incentives to alter the effects of formal rules. They do not change the legal norm but violate the spirit of written rules by mitigating their effects. In this case, the interests of key actors are reconciled with the existing formal institutional arrangements. Indigenous and government institutions *compete* when the two institutions are incompatible with each other and actors are forced to follow one rule by violating the other. Lastly, *substitutive* relationship occurs when indigenous institutions achieve what the government institutions were designed, but failed to achieve; for instance, when state structures are weak or lack authority. While complementary and accommodating indigenous institutions are characteristic of developed stable institutional settings, substitutive and competing indigenous institutions are features of weakness and unstable government institutions, which are found mainly in developing and transition economies.

3. Study Area and Methodology

3.1. About the Study Area

This study was conducted in the town of Nekemte and its hinterlands in Guto Gidda district. Guto Gidda district is located in the East Wollega Zone of Oromia region in Ethiopia lying between 08° 59`and 09° 06` N latitude and 37° 51`and 37° 09` E longitude. The district is

bounded by Gidda Ayana and Limu districts in the north, Leka Dulecha district in the south, Wayu Tuka and Sibu Sire districts in the east, and Digga and Sasigga districts in the west. According to the data from its administration, the total population of the town was estimated to be 95,088 in 2012. The central statistics of the country projects the population of Nekemte Town to be 115,741 by 2017 (FDRE 2013).

3.2. Methodology

3.2.1. Sampling Methods

This study applied the principle of data saturation and attainment of quality (Saunders, Lewis, & Thornhill, 2009) that a small sample size can achieve. A study by Curry et al. (2009) recommends a sample size between 20 and 30 research participants, while Kvale (1996) suggests fewer (between 5 and 25 respondents) for an interview study, especially when heterogeneity and saturation are the driving forces of the research. This study provides a basis to understand the roles played by various LED actors to triangulate and generate detailed and rich data.

The respondents were selected using the snowball sampling technique. I first approached the district agriculture office (DAO), where I described the study objectives. Study sites were selected after reaching consensus with local authorities. Uke and Negassa Farmers' Association (FAs) were purposively selected because they are associated with the cultivation of maize and niger seed. The respondents were also purposively identified based upon farm scale, gender, and business scale, followed by random selection. In the second stage, development agents (DAs) of the selected sites were contacted as key informants; they were also asked to identify potential respondents because they are local experts. Care was taken to include research participants with different backgrounds and attributes, such as farm scale (large, medium, and

small scales[11]), gender, and education. Accordingly, 30 agrarian households[12] (nineteen males and eleven females), nine traders (five males and four females), five millers (four males and one female), five edible oil processors (all males), and two agricultural extension workers (one from each sex) were interviewed. The names of all interviewees were coded for the purpose of gathering and presenting the data, which commenced with personal interviews (PIs), followed by economic activities and locations of the respondents.

3.2.2. Data Collection Methods

In this study, data pertaining to the relationships between government and indigenous local institutions and its implications for LED were gathered through desk reviews of secondary sources and in-depth interviews (UNDP 2012). The desk reviews were collected from official government documents, literature reviews and offices of Farmers' Cooperative Union (FCU). Primary data were collected from farmers, traders, processors, DAs, local government and FCU officials using semi-structured interviews from November 2013 to June 2014 in both Nekemte Town and its hinterlands. The data were related to the culture of doing things (farming, marketing and processing of the products); local rules and regulations; relationships between government and indigenous institutions; and perceptions, choices and level of community involvement in the institutions in the context of LED processes .

3.2.3. Data Analysis Methods

Because of the multiple perspectives of institutional actors and lack of practical tools, there is no widely accepted framework for the analysis of institutions. Numerous tools exist for stakeholders, problem and power analysis (Woodhill 2010). Others include institutional

[11] According to the DAO classification, on average, large-scale, medium-scale and small-scale farmers are those who own 8 ha (19.8 acres), 3 ha (7.4 acres), and less than 0.5 ha (1.2 acres), respectively.

[12] Four of the females and all of the males were household heads.

mapping, perception mapping, and mobility mapping (Holland 2007). Nonetheless, an Institutional Analysis and Development (IAD) framework is commonly used in development contexts. For example, an IAD has been applied to an ecosystem-based management program (Imperial 1999), natural resource management (Andersson 2006; Rahman et al. 2014), and planning and use of resources (Smajgl, Leitch & Lynam 2009). Woodhill (2010) developed rather a comprehensive framework for IA covering wide areas of development: value chain, education, health and environment. This framework incorporates four main functions of institutions: institutions as ways of making meaning of our lives and the social and natural world we inhabit; institutions as the associations we make to work together to achieve certain objectives; institutions as the basis for control over what actor(s) should or can do; and institutions as reoccurring action carried out by actor(s) in social-economic and political life. Under each function, there are sub-domains: beliefs, norms and values, and frameworks for understanding are under meaning; organization and networks, and relationships are under association. Mandates, policies and strategies, and rule are under control. Functions, products and services, and regular practices and behaviors are under action. These domains connect to structure social interaction (Woodhill 2010).

Using this framework, it is possible to study the different kinds of local institutions and how they function and interact in LED processes. It allows the research and analysis of, and generation of understanding about, institutions (Pritchard 2014). It is grounded in a consideration of both government and indigenous rules (Holland 2007; Crase & Gandhi 2009). Further, the approach helps to understand not only the structures and capacities of institutions but also the relationships among them.

This study employs Institutional Analysis (IA) to a particular case study (Ostrom 2007) The case study method is one of the four prominent empirical methods used in contemporary New Institutional Economics (NIE) to analyze the development and performance of institutions. NIE is an interdisciplinary enterprise combining social science disciplines to explain what institutions are, how they arise, what purposes they serve, how they change, and how they should be performed (Klein 1998). NIE seeks to explain the great variability in economic and political performances across countries at macro and micro levels by emphasizing the role of institutions as the fundamental determinant of economic and political development through IA (Alston, Mueller, & Nonnenmacher 2015). IA has come a long way in building on the innovative work of NIE (Ostrom 2007). Case study research method is chosen for this study because it is relevant to answer the *how* and *why* research questions that require an extensive and in-depth description of a social phenomenon or cases such as individuals, organizations, processes, programs, neighborhoods, institutions and events (Yin 2013). They are particularly important for NIE as they enable the analyses of both the determinants and consequences of institutions and institutional change (Alston 2008).

4. Results and Discussion

4.1. Typology and Functions of Local Institutions in the Study Area

Local level institutions can be classified based upon their origin (community or state initiated), the degree of formality (formal or informal), and the services they provide. This study classifies institutions based on their origin. Institutions set up, funded and monitored by the government are grouped as government-initiated and those institutions the people voluntarily initiated and control as indigenous institutions. Farmers' Cooperative Union (FCU) is categorized as a hybrid institution as it shares characteristics of both government and indigenous institutions in its activities. The groups of people in the FCU are organized

willingly, but the management is under the strong influence of the government. Table 5. 1 below shows the different kinds of local institutions in Guto Gidda district and their major functions in the LED processes.

Table 5.1 Local Institutions in Guto Gidda District

S/N	Type	Origin	Functions
1	District government, FA governments, development brigades, *Tokko-Shanee*	State	Implementing government principles and laws
2	FCU	State	Providing services including agricultural inputs, marketing of outputs, consumer goods and storage services.
3	*Afooshaa, Daboo (Jigii), Daadoo, Quuqubee,* etc	Community	Socio-economic mutual assistance among the community such as labor sharing, welfare services, financial services, and other social welfare.

Source: Author's assessment from field data, 2014

4.1.1. Government Initiated Local Institutions and LED

The local government is part of the federal administrative hierarchy (Figure 1) performing government activities at the local level including the provision of frameworks for LED processes through fiscal, legal and political decentralization. These institutions guide services, and execute laws, regulations and principles. They also perform financing and managing local

development projects and environmental protection. A *Garee* (brigade) has 20-30 household members with a chairman, deputy, and secretary, who is a member of a higher order institution called *Gooxi* (local zones). There are five to six *Tokko-Shanee* (one-to-five groups) in a *Garee*. The chair, deputy and secretary are elected by the leaders of *Tokko-Shanee* groups. The *Garees* have written codes of conduct listing activities every member has to perform including, but not limited to, environmental protection, local security and looking after small-scale irrigation sites.

Regular reports on the activities of the community in line with the principles of the government institutions are made to the next higher level of the institution. For instance in Negassa FA, there are three *Gooxis* (local zones)—*Bikilti, Galatake* and *Negassa.* Under these *Gooxis*, there are eight *Garees* and 40 to 48 *Tokko-Shanee* groups. The activities of individual household heads in the *Tokko-Shanee* groups are monitored and reported to the *Garees*, *Gooxi*, FA and then to the district level institution.

According to the government, the objectives of the local institutions are twofold: economic development and security. An interview with an official in the district explains this as follows:

> *In the institutions (Gooxii, Garee, and Tokko-shanee), the farmers exchange ideas on how to increase production. They share experiences. They also discuss their local security issues* (PI with an official in Nagassa FA).

Members of the institution are expected to work together in areas of environmental rehabilitation such as reforestation, building terraces to reduce soil erosion, and sharing good experiences with their fellow farmers. Because the farmers are different in their wealth, knowledge, and experience, local government institutions are supposed to bring together these

heterogeneous households so that the better-off could help others in any way they can. This is mostly organized by the local government through an initiative named “expanding good experiences” in which “model” farmers, traders and other local development practitioners are selected to teach their fellows. In the field of agriculture, in particular, farmers are encouraged to visit the farm field of the “model” farmers to share experiences on how to produce more. DAs are responsible for following up this “expanding good experiences” initiative. Most of the farmers are benefitting from experience-sharing because it has improved their productivity although some farmers still question the extent to which the choice of the “model” farmers is free from political bias, claiming that even if they perform well in any development sector, they are unlikely to be chosen if they are not active supporters of the ruling party. On the other hand, the households are responsible for reporting any security threat such as theft, robbery, and other misbehaviour in their neighborhoods to the leaders of the small groups, who in turn, report to the local government officer.

Local people, however, have a different opinion from the local officials concerning the government institutions. Some of the research participants in Negassa FA reported that the political motive of the local government institution seems to outweigh its economic motives. The practices of the institutions are highly influenced by the local political elites and mostly for the interests of the ruling party rather than for the people. There is a strong influence of politicians as a means to monitor the movement of opposition parties in urban and rural areas because the government fears the loss of its members to opposition parties. Its assumption is that the opposition parties may communicate with the people to promise better opportunities than what the government is offering. This is particularly serious during election times.

As one farmer in Nagassa FA put it:

> *The local government institutions are more interested in politics than economic development. They usually want to hear what the public think about the party politics than about production increase* (PI with a farmer in Nagassa FA).

This indicates the local government's failure to balance between political and economic development agendas, negatively impacting on LED. Those with a different political ideology from the ruling party have low participation in LED processes as the system is less encouraging to them. They have little or no interest to contribute their labor when called by the local government. They are reluctant to participate in government meetings to discuss the socio-economic issues of the locality. In comparing the level of community involvement in these two institutions, a farmer and leader of a *Tokko-shanee* put it as follows:

> *One-to-five grouping is quite important for the local development, but the people couldn't understand its objectives and thus it is not fully institutionalised. When we call upon them for a contribution of labour, they are reluctant to get involved. They prefer indigenous to government institutions* (IP with a local government group leader in Uke FA).

The local authorities associate the poor performance of the sub-district government institutions with a lack of understanding of the institutions' local development objectives among the people. Data from the farmers, however, indicates that the reason for the government institutions' poor performance arises from the fact that the local government institutions emphasize more on

governance and security than on production and productivity. An interview with a farmer in one of the FAs yielded the following:

> *I am a member of government institutions at all levels, but I rarely meet them because the discussion is mostly political ... my current priority is to feed my family. That is why we prefer to engage in our group (indigenous institutions) which help us to co-operate each other in production and other social affairs* (IP with a farmer in Negassa FA).

This shows that local development actors have no problem understanding the goal of the government institutions in the LED processes. They share the objectives of the institutions, but the problem lies in the priority given to development plans/projects. The government is more concerned with governance so as to sustain its rule over the country and maintaining peace and security. The peoples' priority, on the other hand, is food security and this is the reason why the people tend to get involved in *Daboo* and *Daadoo* rather than in *hojii misoomaa*[13]. A similar study conducted in the southern part of the country also shows that local government institutions have not yet able to fully involve the community at grass root level (Abebe 2014).

Further discussions with the local development actors reveal they recieve some services from government institutions, but not to the extent the do from indigenous institutions. In the indigenous institutions, they socialize more than they do in the government institutions because indigenous institutions are based on mutual trust, kinship and clan networks where they can interact comfortably. This creates stronger social bonding. In the indigenous institutions,

[13] Government initiated projects for the common benefits of the society. These may include afforestation, terracing, rural road construction and village school building.

members are assets to one another to be called upon in a crisis (Woolcock & Narayan, 2000). A farmer in Uke FA said:

> *…this group (indigenous institution) is formed from people with similar background. We socialise, share ideas, and help each other in any difficult situation. 'Tokko-Shanee', 'Gooxi', and 'Garee' (government institutions) are not helping in those areas…*(IP with a farmer in Uke FA).

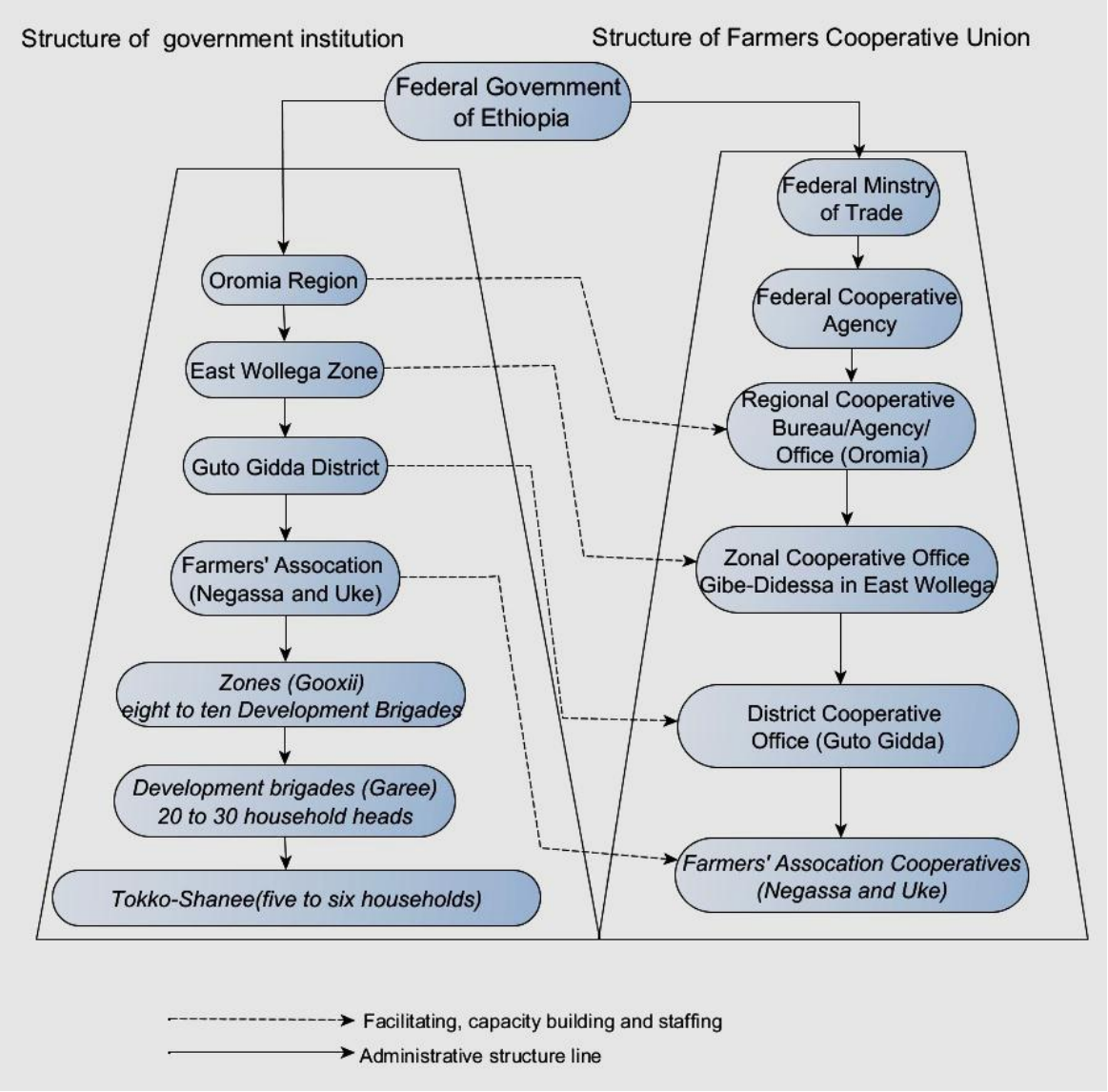
The local government claims it provides farmers, traders, and small-scale manufacturers with extension and credit facilities besides carrying out certain central government activities including maintaining peace and security, and legal and regulatory functions. However, the majority of the households reported that the services are not in place. On the other hand, the indigenous institutions provide those services such as labor sharing, finance and other social services leading to the preference for the indigenous institutions over the government institutions. A similar result is reported in a study conducted in different areas in the southern part of the country showing that the community members prefer the indigenous institutions to the government institutions because the former are based on the self-expressed needs of the community (Nigatu, Eden, & Ansha 2013).

Though independent of the formal government hierarchy, the FCUs, another type of local institution in Guto Gidda district, are closely linked with government institutions. The structure of FCU is quite similar to the structure of government institutions with a hierarchy from the federal to local levels (Figure 5. 1). At the federal level, the government established the Federal Cooperative Agency (FCA) that facilitates the organization of cooperatives by providing support and capacity building services to regional cooperative institutions. The mandates of the FCA include overseeing the implementation of legislation for cooperatives, designing policies

and legal procedures consistent with the international conventions on cooperatives, and ensuring policy coherence between cooperative policy and the broader policy environment. The regional cooperative promotion institutions, with cooperative promotion offices in each zone, are organized as bureaus/agencies/commissions to monitor, regulate, conduct capacity building, register unions and federations, and provide technical support, among others, to the cooperatives. The district offices organize, register and support local cooperatives at FA level (Emana 2009).

The major objectives of the FCU include: providing agricultural inputs; marketing of outputs (collection, assembly and sell or export of agricultural commodities); enhancing income (through price stabilization or dividends); supporting economic growth (through, for instance, value chain development); provision of consumer goods; and provision of storage services (Emana 2012). According to an interview with a manager of Gibe-Didessa FCU (the Cooperative Union of East Wollega Zone), the core value of the union is to solve the farmers' problems in an "organised manner." The Union has currently more than 62,583 members and is working hard towards achieving the government's development objectives of increasing production through using modern technologies in the agriculture sector. This shows that there is a strong connection between FCU and government institutions. The leadership of the FCUs is mostly government representatives recruited and assigned by their political affiliation rather than skills, knowledge and academic merit. Therefore, FCUs are highly influenced by the government.

Figure 5.1 Relationships between Government Institutions and Farmers' Cooperative Institutions



Source: Author's compilation from data, 2014

4.1.2. Community Initiated Local Institutions and LED

Of the indigenous institutions in Guto Gidda district, *Afooshaa* and *Quuqubee* are common in both urban and rural areas. Others like *Daadoo* and *Daboo* are mostly confined to rural areas as they are a means of working together in farm fields such as preparing a field, farming, weeding,

and harvesting. There are also land-based institutions such as *Qixxee* (a share-crop institution) in which the landless get farmland from fellow farmers to cultivate and later share the yield with the landowners after harvesting. The members in *Qixxee* are usually two or three farmers.

Data from the field shows that all local residents are members in local government institutions because every household in the locality is obliged to be involved in the government institutions as a citizen. Looking at the membership in indigenous local institutions, 75 percent of urban households and 87 percent of rural households are reported as members in *Afooshaa.* This is a clear indication of the popularity of the institution in both urban and rural areas followed by the indigenous financial institution *Quuqubee,* with percentages of 70 in rural and 68 in urban areas respectively. Membership of *Daboo* in the rural areas is significantly higher than that of *Daadoo* (77 percent and 17 percent respectively). These institutions are described in detail below.

Afooshaa is an institution where the members contribute (in kind and cash) for their mutual benefit. It is a well-organized institution with its own administration and schedule of meetings implying these institutions are independent of the government institutions with their own structure. *Afooshaa* has written guidelines to run the institutions which contradicts the assumption that indigenous institutions are informal and unwritten. Members of this institution share common interests such as residence in the same neighborhood and religion. The leaders and committee are democratically elected by the members who also determine the term of the leadership. This institution is crucial in the socio-economic development of the people because it is used as an alternative to bank and insurance companies since it serves as sources of insurance and saving. The main objective of the institution is to meet the needs of the members in emergency situations. It helps members during times of financial difficulties such as paying

hospital bills and “compensation” for loss of property by natural calamities, i.e. traditional insurance. It also provides loans for its members free of interest to help the poor to buy agricultural inputs and to cover other household expenses.

Afooshaa also provides material and social and psychological support for its members, particularly during hard times such as deaths and sicknesses. During harvest times, the members are asked to contribute in kind (such as coffee and niger seed) and cash which the institution later uses to make payments to the members. The amount of the contributions is determined by the leaders of the institutions. During mourning, the members gather in the mourning house, and take turns to bring food and encourage the deceased’s family for up to nine consecutive days. Sometimes, they also collect extra money for such particular events from the members to cover burial and other expenses.

Quuqubee is also a widely practiced indigenous financial institution in both urban and rural areas. It is a rotating financial institution whereby members meet regularly to collect contributions of an equal amount from every member and allocate the amount based on a lottery method. Members of the institution are groups of people who can make regular contributions regardless of gender, religion, age and other socio-demographic characteristics. The members draft codes of conduct to guide their unity in case a member, after winning a lottery and collecting the money, should leave the group without completing his/her contribution. In such cases, this document is used to force the members to repay the money, even to the extent of taking the member to court. The money collected through this institution can be used in times of financial need for purchases of agricultural inputs, foodstuffs, and even to start small businesses in urban areas.

Daboo is an on-demand indigenous institution in which the people help the needy particularly in agricultural production (land preparation, weeding, and harvesting) and building houses. Because *Daboo* is a voluntary and unpaid labor sharing institution, anyone of working age (more than 18 years) can join. While men mostly engage in outdoor activities demanding physical strength, women carry out indoor activities such as preparing food for the men in the field. *Daboo* plays a significant role in LED processes particularly in the agricultural production processes because the pooled labor share performs better than the individual's independent performance. Above all, the needy, for instance, the poor and elderly, and those who are unable to produce by themselves if not supported, benefit from the *Daboo* institution.

Daadoo is a similar but slightly different traditional cooperative institution from *Daboo*. As opposed to *Daboo* where there is no limit on the number of members, this particular institution is established by members, usually between five and ten people. It is a seasonal group which is formed mainly during production seasons. Group members in this institution share some common background such as age, physical fitness, and gender, and are grouped based on their interests to work together, as illuminated by a female farmer in an interview:

> *During production seasons, we form 'daadoo' with a group of five or six women and work together. If members want money they are free to sell their chance and wait for another round of the labour* (IP with a farmer in Negassa FA).

Females form groups with whom they share some common grounds like age, religion, and geographic proximity. The men also form their own groups in the same fashion and with similar objectives. Once it is formed, the group works together on farm fields on a rotation system. The members believe that working together is far more efficient than working

individually on their own fields. Sometimes, they also generate money by selling their turn or their places in the *Daadoo* to a member or other people who need labor for their production. Even though it is also practiced among the men, *Daadoo* is more common among women and the poor.

Indigenous institutions play central roles, particularly in areas of working together among the farmers. Cooperative farm work helps the farmers to produce more and to harvest in a timely manner reducing waste. The money the non-farm society gets from the indigenous financial institutions helps them to run their small businesses. Apart from the economic benefits, the indigenous institutions contribute to the development of social capital wherein the people socialize together regardless of their different backgrounds such as economic, political and other demographic elements. As such they transcend the wealth, gender, religion and other differences in the society and thus they can be used as a means of uniting heterogeneous people.

From this data, we can understand that there are different kinds of social capital in different kinds of indigenous institutions. For instance, *Daadoo* groups similar people together and generates *bonding* social capital, while *Daboo* brings people of different backgrounds together to create *bridging* social capital. The indigenous institutions are free from formal party politics that the government institutions are under and this particular feature attracts the local people to become involved.

According to an interview with traders in Uke FA, indigenous institutions can also transcend the rural-urban divide that is artificially created by the government institutions for the sake of administration. Rather than encouraging, the local government institutions seem to inhibit

rural-urban linkages. For instance, Nekemte Town resident traders need to get permission from the finance and economic development department of the FAs to trade maize and niger seed grains in the villages. Similar conditions where the village traders seek permission from the Nekemte Town to trade in town also apply.

Through trust, these indigenous institutions are able to bring people from different economic sectors (such as farmers and traders) together apart from their marketing business relationships which are important in LED processes. One trader described it thus:

> *Out of trading business, I have a strong social relationship with the farmers and other people around me. We have different groups organised under Quuqubee, Afooshaa, and others where we freely and gladly involve. Through these groups, I can even make many friends in this Town (Uke district Town) and the rural surrounding* (IP with a trader in Uke FA).

Large-scale and medium-scale farmers have a relatively similar capacity as small-scale and medium-scale traders to contribute the regular payment required by indigenous financial institutions. In other areas such as religious institutions, the people from both urban and rural areas meet and worship together. This relationship often extends to the business sector where trust plays a vital role in the trading business. They prefer to trade with someone whom they are familiar with than strangers.

Even though price is the primary consideration in the majority of the farmers' grain sales, the influence of trust built through indigenous institutions in facilitating the trade relationship is not negligible. This is particularly true for most of the large-scale and medium-scale farmers

when they store their harvested maize grains in their friends' (traders) warehouses and wait for better prices. Once they are satisfied with the price, they ask the traders to buy the grain in their warehouse according to the day's market price. The quantity of weekly or fortnightly grain sales of the small-scale farmers is too small (mostly less than 20 kgs) to have permanent *maamila* (customers) and thus they prefer to look for any trader offering a better price. This shows the role of indigenous institutions to link the farm and non-farm households together that builds/strengthens rural-urban linkages.

4.2. The Relationship Between Formal and Informal Institutions in the Study Area

Institutional functional linkages are critical in LED processes. Data from the field indicates that the relationship among the local institutions in Guto Gidda district displays features of *complementary, accommodating, substituting,* and c*ompeting* relationships. The first two types of institutional relationships are more effective for the LED processes. In areas such as local dispute resolutions, the indigenous institutions *complement* the government institutions showing strong linkages between the two institutions. Similarly, FCU *complements* the government institutions in providing agricultural inputs to the farmers. Indigenous institutions play a *substituting* role when the local officials use the indigenous institutions to communicate with the people.

In most cases, the interaction between government and indigenous institutions is too complex to accommodate a unique pattern (Zenger, Lazzarini & Poppo 2002). In the district, this relationship is not smooth where it is strong in some aspects and weak in the other. For instance, in local conflict resolution, the community has a tradition called *Jaarsummaa* in which the elders hear the cases and resolve the problems before taking them to court. The court

also recognizes the positive influence of the *Jaarsolii* (elders) and sometimes refers such cases like disputes on farmland and grazing land back to the elders. According to Lekovic (2011), this institutional relationship can be called *complementary* as the indigenous institution is complementing the activities of the government institutions.

Local government institutions in Guto Gidda district are not primarily (economic) development institutions. Neither are indigenous institutions solely established with economic development objectives in mind. Acemoglu et al. (2005) posit that government intuitions are political institutions with a primary objective of regime security in a particular territory. However, they also engage directly and indirectly in economic development processes. The local government institutions organise the people to contribute in areas of soil conservation and production (clearing fields, cultivating, and harvesting) through an institution called *hojii misoomaa*– (development work). Not violating the spirit of the *hojii misoomaa*, the indigenous institutions (*Daboo* and *Daadoo*) work in groups to help one another and increase production. This indicates that the indigenous institutions *accommodate* the government institutions in which indigenous institutions co-exist with the government institutions and aim for an outcome that is not entirely intended by the government institutions. As such, the principle of the government institutions is achieved (group work), but the spirit of the government institutions is violated because the people use their indigenous institutions to work together.

Folowing Woolcock and Narayan's (2000) terminologies, local authorities sometimes use the indigenous institutions (example, *Afooshaa*) as a channel to reach the public ("substituting") in which case the institutions (through social capital) play a "mediating" role between the state and the society. This helps to negotiate and mobilise the community to cooperate in development projects such as building rural feeder roads, constructing bridges on rural rivers,

and contributing in kind (such as chairs and tables) particularly for village schools. The local government also provides a conducive environment for such institutions including the provision of land for free where the *Afooshaas* build their offices and cultivate to generate income. Such kinds of institutional relationships stimulate the LED processes as they collaborate with each other.

Similarly, *Quuqubee* "substitutes" the lack of effectiveness of the local government financial institutions to provide credit facilities and insurances to the people. *Afooshaa* also *substitutes* for the inability of the government to provide insurances. The *substitutive* nature of some indigenous institutions in their relation with the government institutions led to another incompatible institutional relationship, which Lekovic (2011) calls "competing.*"* For instance, when the people gather in churches for worship, and the local government officials want to have a meeting after the service, the majority of the people (especially the young) in both urban and rural areas do not want to attend the meeting. An interview with a processor in Nekemte Town explains this condition as follows:

> *…the local officials most of the times want to use our Church for their own agendas. But the congregation refuse when the officials need to hold a meeting with them. Because of this, they sometimes accuse our Church leaders of not collaborating with the government* (PI with a processor in Nekemte Town).

Similar *competing* relationships between indigenous and government institutions were observed in rural areas. In Negassa FA, a small-scale farmer reported in an interview that local government officials are hindering the performances of indigenous institutions' cooperative

working groups. In the interview, he said, "*Sometimes, the local militias come to the farm field where we are working together and tell us to stop and go for hojii misoomaa*." This competing institutional relationship can even further deteriorate the already weak functional linkages between the local institutions.

The roles of the local institutions in LED processes in the district can be well explained through the lens of the four functions of institutions that Woodhill (2010) proposes (Figure 3): meaning, association, control, and action. The aims of both the institutions in this regard are similar, that is, working towards a strong local economy (*meaning*). However, their approaches and plans to achieve (*action*) the objectives differ from one another. Often, the people are more interested in per capita production increase (which satisfies their immediate food demands) than in common development projects for the benefit of the community. That is why they prefer to work together in each other's farm field turn by turn.

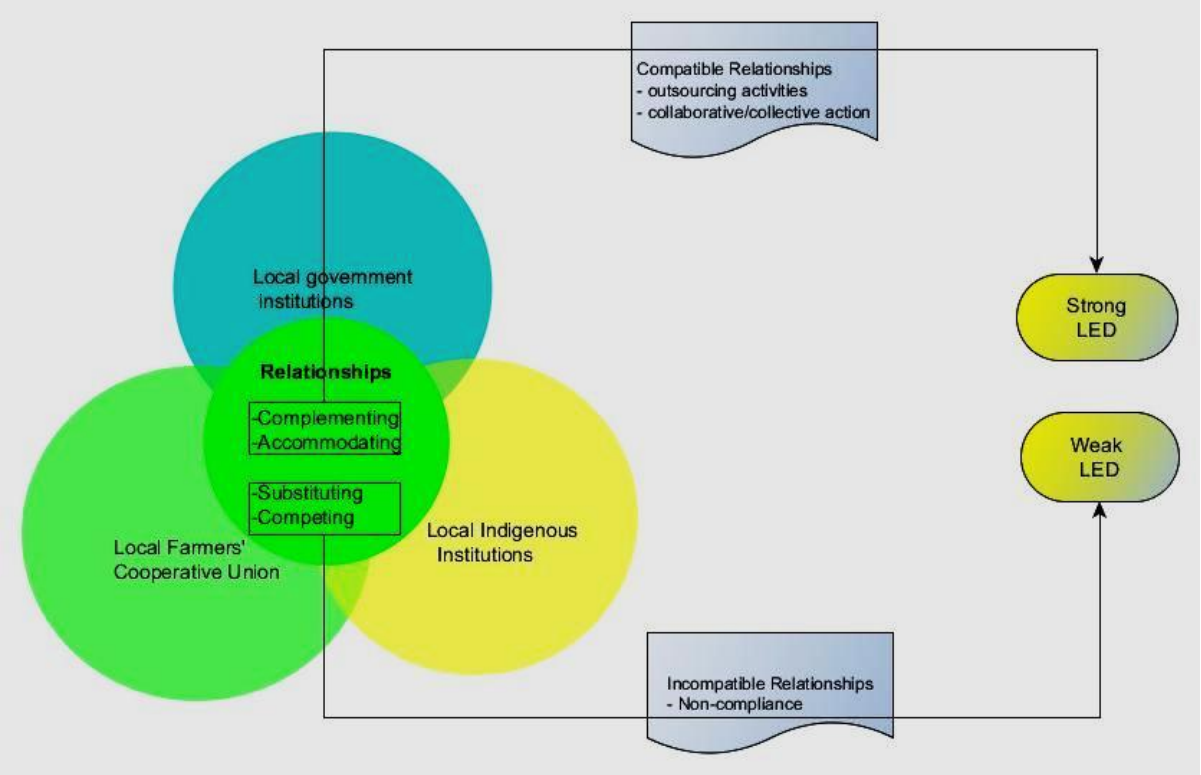
The local government institutions focus goes beyond the short-term food security to include sustainable LED processes such as environmental protection and provision of infrastructure (schools, roads, and health facilities) which are indirectly related to LED. The presence of a similar objective, but different approaches to achieving it, therefore, calls for the significance of institutional functional relationships (*association*) in which both types of the institutions complement each other (Woolcock & Narayan 2000). This collaborative work between the two kinds of institutions needs commonly-set principles (*control*) to guide their activities. This can be done through techniques such as outsourcing and delegation. For instance, the indigenous institutions can effectively and efficiently perform in areas such as common property resource management. They can also mobilize the community to support and cooperate with the local

government development programs. These techniques can enhance collaborative action between local institutions which has a positive impact on fostering sustainable and strong LED.

The presence of the different kinds of local institutions does not necessarily stimulate the LED processes if they operate independently (*substituting* and *competing*) because they do not possess all the necessary resources by themselves to promote LED. For instance, the government institutions facilitate development through the provision of resources and enforcing the rule of law, but are poor in social capital that is the key in mobilizing resources for development. The mere availability of indigenous institutions also does not necessarily lead to economic prosperity (Woolcock & Narayan, 2000). The synergy between government and indigenous institutions is important for LED as institutions are functionally interrelated (*complementing* and *accommodating*). The function of each institution is to govern behavior not governed by other institutions, which indicates the *complementarity* of institutions to one another if there is a good fit between them (Skoog 2005).

The local government, through its institutions, plans and coordinates LED processes. The indigenous institutions have strong social capital and are backed by the public as they are solely owned and run by the community members themselves. FCU *complements* the government institutions through channeling the government services to the people at local level. By this role, cooperatives necessarily interact with the DAs. Whenever there are compatible (*complementing* and *accommodating*) relationships between these influential local institutions, this has strong positive impact on the performance of the development of the locality. In the same manner, non-compliance relationships between the local government rules and indigenous institutions' social and moral norms can cause incompatible (*substituting* and *competing*) relationships leading to the weak performance of LED (Figure 5.2).

Figure 5.2 The Relationship Between Local Institutions in the Study Area



Source: Author's data compilation, 2014

These institutional linkage data show that collective (cooperative) action of the institutions in LED processes is critical in mobilizing local resources for common objectives. This collective action also assists sustainability of LED and improves the local government's overall performances.

A strong local economy can better be achieved when the local development actors explicitly understand the local institutions operating in the LED processes. A clear understanding of the institutions paves a way to accept and practice the institutions (*meaning*). Accepting and practicing the institutions requires abiding by some rules, principles, and social norms (*control*) that guide their activities (*action*) such as farming, trading, and small-scale manufacturing. These activities need collaborative work (*association*) for a better success in LED processes

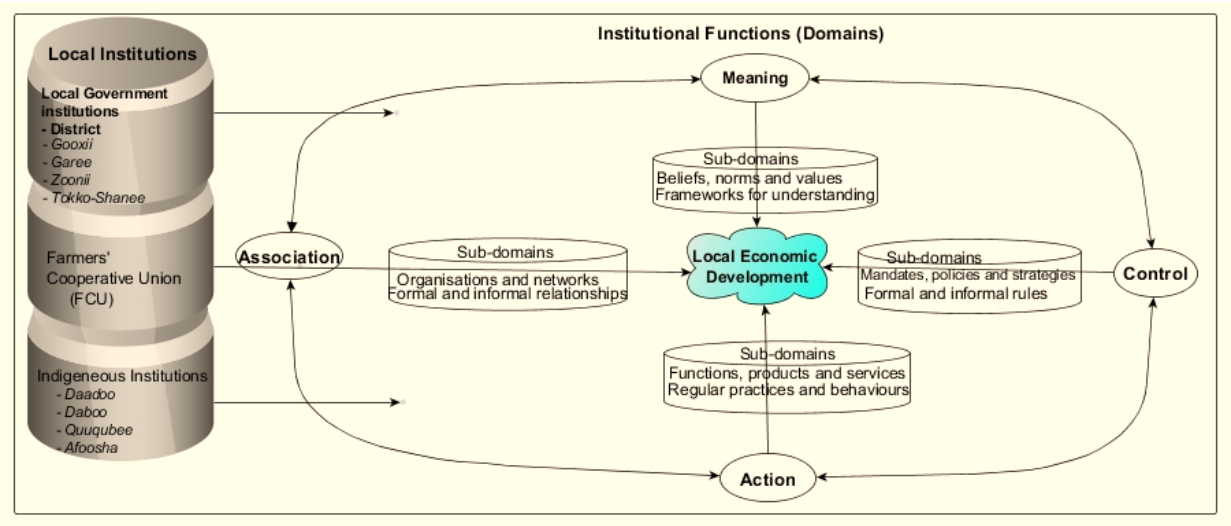
(Woodhill 2010). The different kinds of local institutions and their performances in the LED processes in Guto Gidda district can be summarized as follows using this IA framework (Figure 5. 3). Increase in production and individual income, better job opportunities, access to basic services, and expansion of industries at the locality are among the major indicators of a vibrant LED (*meaning*). These indicators are influenced by the local government and indigenous institutions.

In the Guto Gidda district, the local government institutions are expected to provide agricultural inputs (through FCUs) and credit facilities to the farm and non-farm households to increase production and encourage the flourishing of local businesses. Unfortunately, the priorities of the government institutions are maintaining peace and security rather than production increase. Rules and laws of the government institutions are in place to maintain peace and security (*control*). Instead, the culturally embedded and universally accepted practices among the local development actors in the indigenous institutions provide these services not provided by the government, particularly in relation to finance (example, *quuqubee*), labor sharing (example, *daboo* and *daadoo*) and other socio-economic and psychological services (example, *afooshaa*). These institutions are free from formal party politics.

Because of the importance of the indigenous institutions over the local government institutions (particularly for the poor as they get the support they need in times of crisis), the local development actors prefer to accept and practice the indigenous institutions rather than government institutions (*meaning*) where they work together (particularly the farmers) to increase their productivity (*action*). The influence of social capital (mutual trust among the

development actors) in the indigenous institutions, however, is remarkable. The social norms and values are the standards by which the people collaborate with each other in the indigenous institutions (*control*). In this institution, the people help each other by working in their respective farm fields, contributing cash and encouraging one another during hard times (*action*). This actor preference for the indigenous institutions over the local government institutions in turn negatively affect LED (*meaning*) as the actors show less willingness to contribute to local government-initiated development projects. In theory, LED is a process in which actors seeks to grow local economies through production increase, employment generation and attracting investment, among others (*meaning*), which may require the contribution of each local stakeholder.

Figure 5.3 A typical Institutional Analysis Framework for Local Institutions and LED



Source: Modified from Woodhill (2010, p. 51).

Functional linkages between the local government institutions and indigenous institutions (*association*), nonetheless, are generally weak which negatively impacted LED processes in Guto Gidda district.

5. Summary and Conclusion

The study revealed that both government and indigenous institutions contribute to LED processes in Guto Gidda district. They pool and allocate resources for production, create an environment where the people generate income and strengthen social capital among other benefits. The indigenous institutions are more appealing to the local development actors than the government institutions in Guto Gidda district because of the more accessible services they provide and because they are not related to ruling party affiliation. They also facilitate social capital which, in turn, stimulates mutual collaboration and reduces transaction costs. The "bridging" and "bonding" effects of social capital in the indigenous institutions encourages the people to help each other during times of crisis, constituting their final safety net. Indigenous institutions are important for the poor who use them to mutually support each other and these kinds of services are missing in the local government institutions. The government has no social welfare system in place to help the needy apart from an occasional safety net program.

When the institutions operate in LED processes independently or when the development actors tend to practice one type of institution over the other, they fail to fully contribute to the local development endeavor because neither of the institutions is complete by itself. Because of the weak relationship the government institutions have with the local people, government institutions lack the capacity to make use of the local culture and practices that are widely accepted and shared among the development actors, which is important for resource mobilization. It also hinders the local people's ability to understand what the government institutions are doing and why they may fail to meet their service delivery expectations. Indigenous institutions have limitations in funding development projects, maintaining security, and representing the people at higher government levels.

Data from the field also illustrated some major threats to the indigenous institutions. Indigenous institutions are not well protected, insured and sustained by the local government institutions despite their irreplaceable roles in the LED processes. Further, indigenous institutions do not have a clear line of communication and regular networks with the government institutions. The local government only uses them in the case of matters of urgency such as conveying its message to the people and conflict resolutions. This shows that the success of the indigenous institutions is partly a function of the support of local government institutions.

Even though they may have other priorities, local development policy-makers should strengthen the linkages and mutual collaboration between indigenous and government institutions. Indigenous institutions are culturally embedded and universally accepted practices. Local government institutions are part of the national state structure, and are, therefore, structurally top-down institutions. By systematically integrating these two kinds of local institutions through adopting an institutionally diverse approach that avoids or reduces competition and duplication and encourages synergic collaboration, a strong LED can be achieved.

One technique can be through outsourcing activities that are better performed by indigenous institutions. The outsourcing the provision of agricultural inputs to FCU is a good start. Government and indigenous institutions are important in LED processes, but they need to have their own arena to play their roles. Freeing the people from party politics, which pushes the people aside from full and interest-based participation in LED processes, will strengthen the institutional relationships.

Functional linkages between the local institutions not only encourage the actors' participation in LED processes but also develop their sense of ownership and confidence in local development programs. When the two kinds of institutions are compatible (*complementing* and *accommodating*) with each other, indigenous institutions' law-abiding behavior would be fostered which accelerates development of the locality. This happens because the local people will have a strong interest to get involved in LED processes for the benefit of the locality and such collective action has the capacity to mobilize local resources and support the local government's overall performances. Incompatible institutional relationships (*substituting* and *competing*) result in weak LED. Breaching the local government laws and failure to adapt the laws to the traditional norms, customs and culture would lead to conflict between the two institutions, retarding LED.

Chapter 6 Bridging the Rural-urban Divide for Local Economic Development in Nekemte and its Hinterlands, Oromia, Ethiopia

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This Chapter is an exact copy of the journal publication referred to above.

1. Introduction

The traditional rural and urban dichotomous approach to understanding local economic development (LED) does not always accord with the reality of the contemporary globalised world (UN 2011). Globally, societies are highly interconnected at local, national and/or international levels (Magel 2003). At the local level, rural and urban areas are linked together through the flow of people, production, commodities, capital and income, market information among others, and this makes rural-urban linkages important for LED and poverty reduction (Eppler, Fritsche & Laaks 2015). Strong rural-urban linkages would, therefore, encourage new forms of livelihood through diversification and agro-processing (Steinberg 2014) .

Academics around the world have been debating the pros and cons associated with rural-urban linkages since the 1950s. However, there have been changes in the same over time. In the 1950s, policies have called in for an acceleration of urban-industrial growth because urbanisation was generally considered to be associated with modernisation (Sani & Far 2015). By the 1970s, the concept of development approaches shifted to integrating infrastructures in the rural areas to achieve rural developmental goals, this was also correlated with reduction of comparative disadvantages for competition and utilisation of rural resources (Nemes 2005). In the 1980s, it was recognised that these dichotomous development approaches failed to bring the intended development outcomes, and therefore, has resulted in the emergence of rural-urban linkages as a mode of development approach in the regional planning (UN 2011). The result of a study by Tegegne (2001), indicated that an attempt to bring about rural development has been made by focusing on structural sectoral problems in Ethiopia , however, the same has failed to achieve the desired changes. The rural-urban linkages approach to development focuses on the mutual development of both urban and rural areas for a strong local economy. It

is assumed that both the areas are interdependent through the flow of resources and other linkages. Urban areas provide markets for agricultural and rural commodities and rural areas provide agricultural surpluses to the urban area (Akkoyunlu 2013).

In Ethiopia, the government views rural-urban linkages as a policy priority for rapid economic development and has been introducing successive development policies that encourage rural-urban linkages since 2002/03 (MoFED 2007). These policy frameworks include Sustainable Development and Poverty Reduction Programme (SDPRP) and the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) among others. PASDEP was considered as the most consolidated policy framework and was implemented between 2005/06 to 2009/10. The First Growth and Transformation Plan (GTP), 2019/10-2014/15 has just closed with the second GTP to be implemented from 2016-2020 (FDRE 2015).

The initiatives under each framework were built on the results from those of the previous. Initiation of PASDEP restated the need to strengthen rural-urban linkages to maximise growth and reduce poverty by taking full advantage of the synergies provided by market integration, labour mobility, and access to income-earning opportunities between urban and rural areas (). It also underlined the important role of improving infrastructure (rural access roads, telecommunication, and rural electrification), and development of small-scale credit markets as key instruments to facilitate rural-urban linkages. PASDEP linked rural transformation with electrification since it observed that electricity transforms rural economies not only by providing the basis for businesses and agro-processing at regional/zonal Towns. This was intended to prevent migration to the urban areas and also to use the byproducts (from the agro-processing industries) to be channelled back to the field. It also is expected to enhance the

modernisation of agricultural production that could attract investors interested agricultural production and establish ancillary industries in the regions (FDRE 2010). In its urban development strategy, rural-urban linkages were considered as one of the pillars whereby emphasis was given to the development of small Towns as a major entry point of resources ().

According to the government's own evaluation, PASDEP achieved most of its desired goals. The report also indicates that Gross Domestic Product (GDP) increased from 7 percent in 2005/06 to 11 percent in 2009/10, with the share of agriculture and industry being 8.4 percent and 10% respectively. In terms of infrastructure, the numbers of kilometres of all-weather roads increased from 36,400 km in 2004/05 to 48,800 km in 2009/10, these figures exclude those in the district or rural areas (FDRE 2010; Nuru 2015). Mobile telecommunication network capacity was increased from 0.5 million users to 25 million users. PASDEP was also used to generate 2000 MW (61 percent of its objective) of electricity at the end of 2009/10 (FDRE 2010).

However, scholars question the credibility of the success report as it lacks independent verification (Teshome 2006). Presently the telecom, utilities, civil aviation, and financial services remain solely or largely under the government control limiting the services they provide. There have been reports that the state-owned telecom provider is failing even to provide the basic services and this is negatively impacting rural-urban linkages and development of the localities and beyond. The government also influences the strategic direction of economic development through party-linked holding companies, or 'endowment companies', as they are known in Ethiopia (Jalata 2015). This has a negative impact on rural-urban linkages and also the economy of the country at large. Others studies have also indicated that the lack of specific emphasis in the PASDEP on rural-urban linkages as specific

development agendas in the macro policy framework partly resulted in the perpetuation of sectoral development and policy implementation (Dorosh et al. 2011).

This lack of focus reflects a continued emphasis on traditional development debates and policies focusing on economic sectors (agriculture and industry), rather than on integrating geographic areas (rural and urban), along with an implicit assumption that agriculture can be equated with rural areas and industry with urban areas (Dorosh et al. 2011) . Thus, it becomes necessary to examine empirically whether these government policies have achieved their aims in developing stronger linkages, and if not then what can be the possible causes for the same. The study aims at identifying some of the underlying causes contributing to weak rural-urban linkages. The importance of the study rests in the fact that LED related studies are under-researched and this is particularly true in the study area.

1.1. Objectives of the Study

The paper has two specific objectives: a) to identify the major obstacles to maximising value from rural-urban linkages and LED and b) to suggest possible ways to foster rural-urban linkages to help strengthen LED in the study area.

1.2. Rural-urban Linkages in Local Economies

Urban and rural areas are variously defined based on different criteria including population size and density, economic activity, administrative functions and infrastructural development (McGranahan & Satterthwaite 2014). Administration and demography are the two major criteria for a successful rural and urban linkage (Tacoli, McGranahan & Satterthwaite 2015). In

Ethiopia, (since the implementation of its first census covering the entire population in 1984), the Central Statistical Authority (CSA) has defined urban areas as localities with 2000 or more households. Urban areas include administrative capitals of different regions, zones, and districts, as well as localities with at least 1000 people who are primarily engaged in non-agricultural activities, and/or areas where the administrative official declares the locality to be urban. In addition to population size, the government defines three other criteria to classify an area for an urban centre: the strength and role to lead as a centre of development for the surrounding environs; political roles; and historical and cultural roles (Gete, Trutmann & Aster 2006).

Rural-urban linkages, when formalized and promoted by government policies, have the potential to promote strong LED by contributing to the well-being and livelihoods of the residents and providing an exit out of poverty (Gete, Trutmann & Aster 2006). Sustainable rural growth and urban growth are positively correlated because stable urban service sectors may provide more jobs by absorbing migrant labourers from the rural areas and supplying (semi) processed products to the same which in turn generates a significant proportion of urban incomes (Adugna & Hailemariam 2011). Strong rural-urban linkages enhance sustainable LED as the linkages channel resources from producers to consumers creating economic benefits for the residents (Akkoyunlu 2013). These linkages have also a potential to stimulate diversification of economic activities in rural areas, particularly when they are in geographic proximity (Dorosh et al. 2011; Mushir & Meaza 2013).

Livelihood diversification assists capital and asset accumulation (Dorward et al. 2009) whereby farm households with farm assets have access to urban networks in which they can re-invest

profits from urban-based activities in agricultural production and vice versa. This diversification is, therefore, an important element of the 'virtuous circle' of rural-urban economic development where the role of infrastructure linking producers to domestic and external market is significant. The 'virtuous circle' model asserts that the higher the incomes from the production of agricultural goods for non-local markets, the more the demands for consumer goods among rural households leading to diversification (Tacoli 2004).

Rural-urban linkages are influenced by factors including institutional (market and financial), infrastructure, development policy, and accessibility of farmland (Akkoyunlu 2013; Sietchiping et al. 2014; Remy et al. 2015). Market institutions influence the income of households especially when some actors such as traders are able to enforce market controlling mechanisms favouring access for specific groups at the expense of the others. The capacity of both areas to satisfy the production-consumption demands of their people help to determine the strength of the linkages.

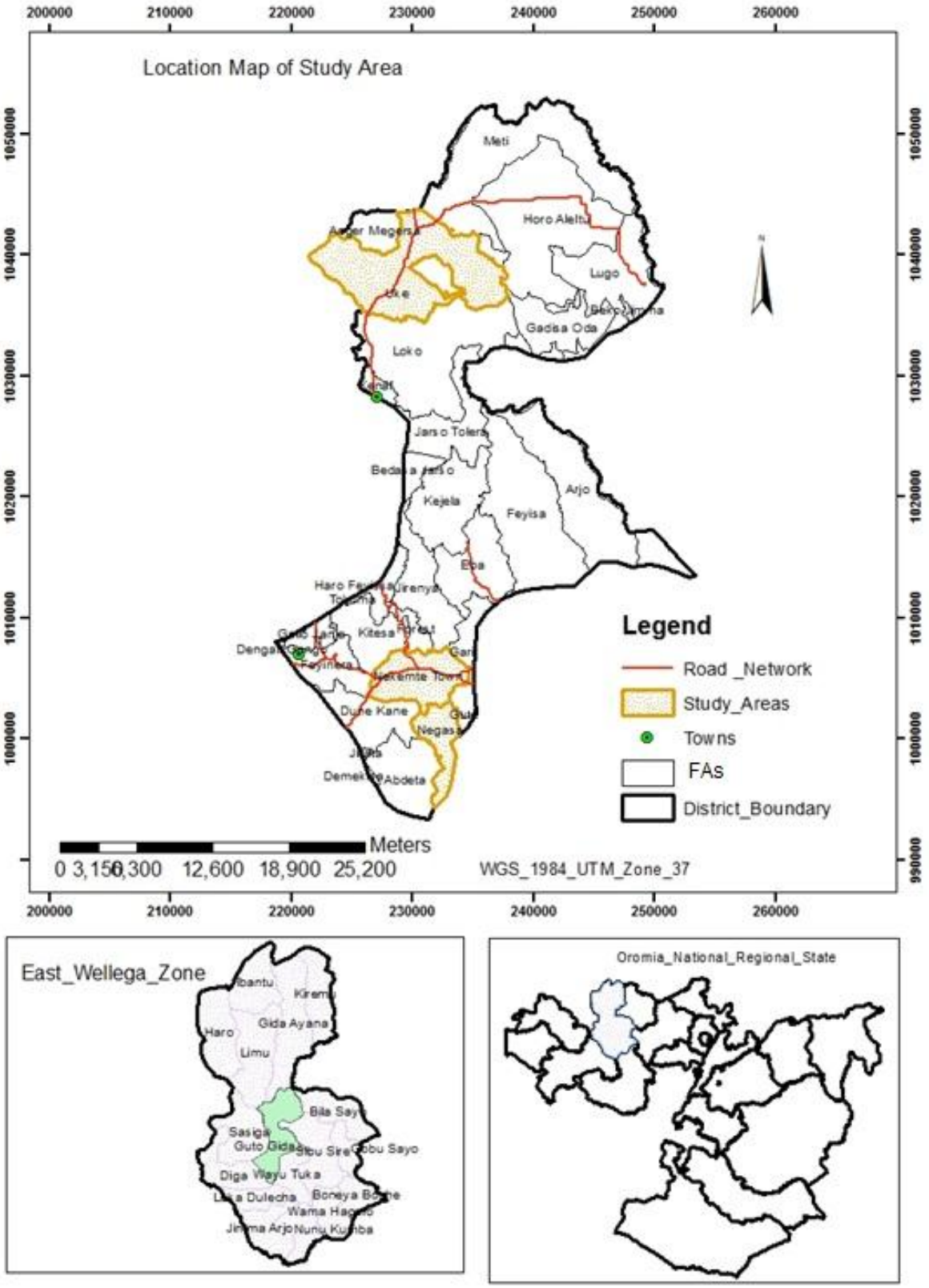
Physical infrastructure (such as roads) and information communication technology play a central role in bridging the rural-urban divide by facilitating linkages between the agricultural and non-agriculture sectors of the economy (Sietchiping et al. 2014). Particularly in developing countries, distance to markets, and the lack of roads is a central concern for rural communities which jeopardises the livelihoods of the rural poor. As such the rural poor have difficulty in gaining access not only to competitive markets for their produce but also to inputs, assets, and technology, consumer goods, credit and labour (Khor 2006).

Development policy can influence rural-urban linkages by creating favourable conditions for strengthening the linkages through a provision of infrastructure and the development of small urban centres and their surroundings (Akkoyunlu 2013). In Ethiopia, small and intermediate urban centres serve as markets and service centres for local agricultural producers and also as administrative centres (Dorosh & Thurlow 2013; Fitsum 2013). They also occupy a space in the middle of the rural–urban continuum where both urban and rural characteristics prevail (Satterthwaite & Tacoli 2003).

2. Description of the Study Area

This study was conducted in Nekemte Town and its hinterlands in Guto Gidda district. Guto Gidda district is located in East Wollega Zone of Oromia region in Ethiopia situated between 08° 59'and 09° 06` N latitude and 37° 51`and 37° 09` E longitude. There are 29 Farmers' Associations (FAs) in the district from which Uke (with 754 household members) and Negassa (with 655 household members) FAs were selected because agricultural products used for this study are best grown in these two areas. Maize (*Zea mays*)is dominant in Uke FA and niger seed (*Guizotia abyssinica*) is better grown Negassa FA (ORS 2014). The district is bounded by Gidda Ayana and Limu districts in the north, Leka Dulecha district in the south, Wayu Tuka and Sibu Sire districts in the east, and Digga and Sasigga districts in the west (see Figure 6.1).

Figure 6.1 Location Map of Guto Gida District



Nekemte and Asela Towns in the Oromia region were included in the country's sectoral LED in 2009 (FDRE & UNDP 2012). Nekemte was chosen for this study because of the dominance of maize and niger seed production in the surrounding areas which were used to analyse the rural-urban linkages and LED.

Guto Gidda district is endowed with a wide range of agro-ecological zones ranging from warm weather in the low altitude areas to cool weather in higher altitude areas, resulting in a favourable environment for the production of different types and varieties of crops including cereals (maize, sorghum, *Teff*), oil seeds (niger seed and sesame) and pulses (beans). Information obtained from the Finance and Economic Development Office of Guto Gidda indicates that the district enjoys tropical and sub-tropical climate with an average annual temperature between 160c and 310c, and annual rainfall between and 580mm and 2200mm (GGFEDO 2013). The majority of the community are agrarian and reside in the rural areas. Its total population was 105,332 heads in 2013 (NRGO 2014). There are also a few small market centres including Bandira in the Negassa FA where small-scale traders collect maize and niger seed from the farmers and trade the commodities in the nearby secondary markets (ORS 2014). Nekemte Town is the capital of Guto Gidda district and also of East Wollega Zone. It is located at latitude of 9°5' N 36°33' E and longitude of 9.083° N 36.550° E. According to FDRE (2013) the population of Nekemte Town was 115,741 heads.

2.1. Socio-economic Profile of the Respondents

The research participants were from both urban and rural areas and the respondents represented farm households, traders, small-scale processors of maize and niger seed and local government officials. Data from the field indicates that the majority of the farm households were small-

scale farmers (70 percent) with subsistence production. Female respondents (including female headed households) account for 37 percent of the rural household research participants. Data from Nekemte city administration shows that the major sources of income for urban households in 2012 include salaries, self-employment, rent income, remittance, wages from daily labour jobs, and agriculture to mention a few. The information further indicates that nearly half of its households face a shortage of income to support their livelihoods, which is aggravated by low productive self-employment (NCD 2012). Uke and Lugo Towns, located to the north and northeast of Nekemte Town respectively, are defined in this study as small urban centres as they are centres of agricultural products exchange for the local people. In terms of counting, however, the Central Statistical Agency (CSA) of the country included the population in the two areas under rural (FDRE 2013). Uke district Town is the centre of grain (including maize and niger seed) collection for traders coming from Nekemte Town.

3. Study Methodology

3.1. Sampling Methods-

This study applied the principle of data saturation and attainment of quality (Saunders, Lewis & Thornhill 2009) which a small sample size can achieve. Studies by Curry, Nembhard, & Bradley (2009) recommend sample size between 20 and 30 research participants while Kvale (1996) suggests less (between five and 25 respondents) for an interview study especially when heterogeneity and saturation are the driving forces of a research. The study provides a basis to understand the roles played by various LED actors to triangulate and generate a detailed and rich data.

The respondents were selected using the snowball sampling technique, where both primary and secondary data were collected. The researcher first approached the District's Agriculture Office (DAO) where objectives were intimated. Study sites were selected after having common consensus with the local authorities. Uke and Negassa FAs were purposively selected because they are associated with the cultivation of maize and niger seed. The respondents were also purposively identified based upon farm scales, gender and business scale followed by random selection. In the second stage, Development Agents (DAs) of the selected sites were contacted as key informants and also to identify the selected respondents because they are local experts. Care was taken to include research participants from different backgrounds and attributes such as farm scale (large, medium and small scales[14]), respondents belonged to both the sexes and education. Accordingly, 30 agrarian households[15] (nineteen males and eleven females), nine traders (five males and four females), five millers (four males and one female), five edible oil processors (all males), and two agricultural extension workers (one from each sex) were interviewed. The names of all interviewees were codified for the purpose of presenting the data commencing with PI (Personal Interview), followed by economic activities and locations of the respondents.

3.2. Data Collection

A qualitative research design was used in the study to investigate the flows of commodities (maize and niger seed), people, finance and market information between Nekemte Town and its hinterlands in Guto Gidda district. These two crops were selected because maize plays a significant role in the food security of the country in general and of the study area in particular.

[14] According to the classification of the District's Agriculture Office, on average, large-scale, medium-scale and small-scale farmers are those who own 8 ha, 3 ha and less than 0.5 ha/farmer respectively.

[15] Four of the females and all of the males were household heads

It is the second most widely cultivated cereal crop after *Teff* (Eragrostis tef) (Dorosh & Rashid 2013) and the most important staple food product in terms of calorie intake especially in rural Ethiopia (Abate et al. 2015). Niger seed is an economically important edible oil seed crop constituting about 50 percent of the oilseed production in the country (Syume & Chandravanshi 2015). Apart from its domestic importance as a source of edible oil, it is exported to different countries and generates much-needed foreign currency for the country (Allaro 2011).

In-depth qualitative semi-structured interviews were used in the data collection because of its ability to gather information from non-literate participants (Engelmann & Isiaho 2005). The questions were different for different participants. The study was conducted between November 2013 and June 2014. Most of the questions were related to the significance of the flows of people, production, and information between Nekemte Town and its hinterlands to the peoples' livelihoods. The questions were also aimed at identifying the major barriers (such as those related to credit, gender-based opportunities or constraints, and infrastructure) to the rural-urban linkages and LED processes. Narrative explanations were tape-recorded and transcribed. These audio-recordings were complemented by field notes which included observations of verbal and non-verbal behaviours as they happened, and immediate personal reflections about the interview.

3.3. Data Analysis Methods

Data from the interview and secondary sources were analyzed using qualitative methods. All the recorded conversation was transcribed verbatim and themes were identified as to the major factors affecting production, processing, and marketing of maize and niger seed. Principles of case study analysis including addressing all the evidence and examining major rival

interpretations, focusing on the most significant aspects of the case study, and employing the researcher's prior knowledge as suggested by, Yin (2008) were used to further the analysis. To interpret the results, interview data from various categories of research participants and publicly available data in the district on agro-processing and marketing of maize and niger seed were assessed and compared with results of similar studies conducted in Ethiopia and in other developing countries.

4. Results and Discussions

4.1. Findings

The supply of maize and niger seed from the rural areas is one of the determinant factors for the linkages they have with the urban areas. Production of grains is a function of the farmers' access to farmland, proper and timely accessibility and procurement of agricultural inputs, well developed and efficient extension services, cheap and easily available farmlands and infrastructure among others. Low productivity from the agricultural land is correlated with land degradation which is attributable to poor soil management besides deforestation and inadequate access to inputs that can rejuvenate the nutrients lost through cropping (Jolejole-Foreman, Baylis & Lipper 2012). As in many of the developing world, in Ethiopia in general and in the study area, in particular, the rural-urban linkages are prone to mistrust and overall multiple inefficiencies of the various actors associated with the production and value chain (Makosa 2015; Dalipagic and Elepu 2014).Moreover, there is a lack of support policies to bridge the mistrust and due to the same the linkages lack guidance and coordination. The cumulative effects of these problems have weakened the LED processes.

4.1.1. The Rural Element of LED in Guto Gidda District

Constraints- Subsistence production in the rural areas is a threat to the prospects of rural-urban linkages and development of the district. However, the ad hoc linkages between the two can be a potential for the same. Insufficient cropland holdings constrain production. In Guto Gidda district, over 66 percent of the respondents were small-scale farmers (owning less than 1.5 hectares of farmland). These respondents were not able to meet their family food demands as they are unable to produce enough crops. The agriculture is rain-fed and the land does not produce enough food to meet even their basic requirements (Regassa, Givey & Castillo 2010). Data obtained from the DAO provides further evidence that many rural poor are unable to meet their basic needs and are chronically food insecure. Some farmers do not have farmland apart from a small parcel in their backyards. For instance, a farmer from Uke FA, who has half a hectare of farmland, and a father of four, states the seriousness of the problem leading to his 'diversification' as follows:

> *Because I cannot feed my family given my small and low productive farmland, I do many things that help me get money including daily labour works on the farmland of the investors. I cannot even afford to buy food when we finish what we harvested let alone buy inputs for the next production* (PI, male collector in Uke FA).

Access to credit is a major issue which prevents farmers from overcoming limited land size or developing other businesses. The financial shortages the small and medium-scale farmers face compromise their production potential for the urban market because they are unable to buy oxen and agricultural inputs. Although they could rent land under sharecropping arrangements, it is impossible for them to cultivate it effectively.

A widowed small-scale farmer from Negassa FA explained her problem of production as follows:

> *Apart from the shortage of land, I have a serious problem of finance. If it were not from this financial shortage, I would have done small business and get more income to buy grains for food and agricultural inputs* (PI, female small-scale farmer in Negassa FA).

There are some financial institutions operating in the district including Commercial Bank of Ethiopia, Oromia Credit and Saving Share Company (OCSSCO), and Wasasa, which provide financial services. The Farmers' Cooperative Union sometimes provides loans for its members. Both OCSSCO and Wasasa have a mission of poverty alleviation through availing financial services to the poor farmers and others engaged in small-scale production and services. Nonetheless, the majority of the rural people in Ethiopia prefer to use indigenous financial institutions to formal financial institutions. A study revealed that in 2009 only one percent of the rural households maintained bank accounts (Tenaw & Islam 2009). Besides, the formal institutions need to ensure that the farmers have no credit overdue and have the potential to repay the money on time. Even if they provide the money, they prefer to provide goods in kind rather than cash as they are sceptical of the possibility of repayment. Even though providing cash may have its own drawback when the recipients spend the cash on social matters, it does not help the farmers to conduct their businesses effectively.

Indigenous financial institutions such as *quuqubee* also provide finance. *Quuqubee*[16] is a rotating saving and credit association whereby members meet regularly (mostly monthly) to collect contributions of an equal amount from every member and to allocate the amount based on a lottery. It is an informal way of saving with no interest paid on the amount collected. The money collected through these institutions can be used for business or any other household expense (Tenaw & Islam 2009). However, in rural areas, the contribution members can make is very small and, thus, payouts are of limited value when setting up a start-up business. Those who participate in have 'regular income', for example from selling their agricultural products such as butter and grains, or they run a small business.

Poor market information, lack of coordination and trust between value chain actors hamper effective trading (Trienekens 2011). Market information is crucial for a healthy commodity flow between urban and rural areas. This is a means to develop mutual and trust-based trade relationships between farmers and traders/buyers. In Guto Gidda district, however, information flows between the traders and farmers are poor. Neither does the flow guarantee using the information because the sources of the information determine its credibility. Farmers thus do not get reliable market information. They mostly rely on information they get from relatives, friends (both in the villages and Town), and fellow farmers and above all by going to the markets centre in person. This affects their maize and niger seed sells and impacts upon the farmer-trader relationship. An interview with a farm household in Uke FA states the situation as follows:

[16]*Quuqubee* is an Oromo term referring to an indigenous financial institution used for credit and saving purposes.

> *Lack of organised market relationships and reliable information flow between the farmers and traders affects our livelihood. Everyone does his/her business independently with no coordination. If we could have such relationships, we could form an agreement on supplies which would help us to provide sufficient and quality grains to consumers* (PI, male farmer in Uke FA).

This interview underlines the lack of coordination in the gain value chain. The absence of coordination negatively impacts upon the quality and quantity of products flowing between urban and rural areas. Farmers rarely trust traders/collectors because they believe that traders usually give wrong market information to increase their profit margins. Some farmers mix bad quality grains (including rotten) with good ones when they sell to the traders which impact upon the traders' profit.

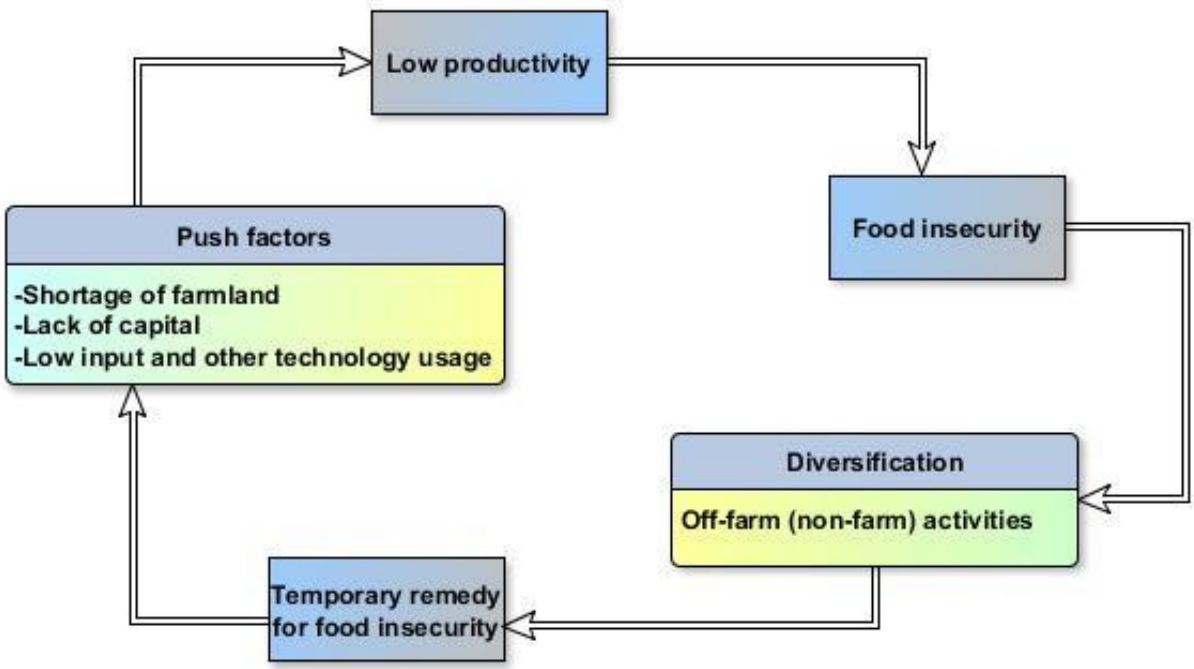
Availability and affordability of infrastructure including road, information communication facilities, and power are another determinant factors for grain value chain between urban and rural areas (Von Braun 2007). In the district, all-weather gravel road linking Nekemte Town to Bure Town (in Amhara region) passes through Uke market Town. Traders and collectors visit Uke district Town at least twice a week for trading purposes. Lack of feeder roads linking villages to the main road in the area, however, is one of the bottlenecks to LED (Gebre-Selassie & Bekele 2012). Recently, the provision of mobile networks in rural areas has contributed to the betterment of information flow in the area. Nonetheless, the majority of the farm households cannot afford to use the technology. Processing is also challenged by power outage as one processor puts '*power get on and off frequently*[17] '. Even though all the processors (millers and edible oil processors) need electric power for their processing, grain

[17]PI with an edible oil processor in Nekemte Town, 2013/14

millers sometimes use mills supplied with generator facility. This is especially true in remote villages where there is no electric power supply. Oil processors; however, are dependent on electric supply to operate the expellers. In the absence of regular and dependable power source, the processors cannot operate their pieces of machinery. Thus in spite of high demand of cooking oil the supply is limited due to infrastructure-related constraints.

Livelihood Diversification- Households in both urban and rural areas in the district typically diversify their activities as a means of livelihood support indicating that the same is a survival strategy (Figure 6.1). In Uke district Town, there are small-scale businesses involving people from the centre and the surrounding villages. Urban households also engage in farm activities in their backyards and/or in the rural areas where they get the land from their families, relatives or friends, or renting from farmers.

Figure 6.1The 'survival strategy' of Rural–urban Linkages and LED in Gutu Gidda District.



A number of farmers seek off-farm income generation as a livelihood strategy. Out of the 30 total farm households interviewed in the district 21 (70 percent) reported they are engaged in either off-farm or non-farm activities besides their regular farming business (Table 6.1). Farmers in Uke FA mostly cultivate maize while those in Negassa produce both maize and niger seed depending on the micro-agro ecology of the areas. Similarly, out of nine traders interviewed in the Uke district Town, four (44 percent) responded they are also engaged in farming activities besides being part time in trading of agro products. Most of the residents in Uke[18] district Town are involved in multifarious activities viz. have a petty business, street vendors, have small eateries (bars and restaurants) beside milling and retail trading.

Table 6.1 Household Economic Activity in Guto Gidda District

Occupation	Percentage
Farming and daily wage labour	40
Farming only	30
Farming and sale of local food and drinks	13.33
Farming and local trade	3.33
Farming and local government employee	3.33
Farming and Others	10
Total	99.99

Source: Computed from field data (2014)

Wage Labour- The study indicates that among all the off-farm/non-farm activities most of the respondents served as daily or wage labour followed by those associated with small business mainly selling locally made food items and drinks and also associated in construction

[18] Uke is the name of the Town and also of the district.

works. It has also been reported that, adults and young (school-age) males who are engaged in daily labour commute long distances to seek some sort of work or the other. They also encourage their children to contribute to these activities. The children above 18 years old are involved in doing daily labour jobs so as to get some money during off-school days. He explains:

> *My children do daily wage jobs after school on farmland of the investors' to earn some money. They have managed to buy their clothes, shoes, and school materials and I do not worry about them. During their holidays, they go to Nekemte Town to do casual jobs in construction industries to get money* (PI, male small-scale farmer in Negassa FA).

The frequency of the travel by the respondents depends on the nature of job available and also on the proximity of the villages to the Towns itself. Rural residents immediately bounding the Towns commute on a daily basis while others far from the same (up to 30 km or more) not. The later visit the Towns during market days. The proximity of Negassa FA to Nekemte Town, in particular, allows farmers to commute frequently (even daily) and be employed as daily wage labour or in vending agricultural products in the street. However, this commute is more common during peak market days of Nekemte Town which is twice a week.

The seasonality of wage labour opportunities in these Towns limits the income of wage labourers. During peak harvest times (mainly in Uke district), wage labourers move into the district Town from surrounding rural areas (and also from Nekemte Town) to harvest maize on investors[19] farmland, located close to Uke district Town. These people are migrants who are

[19] Investors in this case are those who lease extensive farmland from the government to produce mainly

mostly landless farmhands and therefore solely depend on such activities. During this time, the labourers reside in the farm area or in the nearby Uke district Town until the harvest is over. After this season, the wage labour opportunities are few thus limiting their livelihood options. Construction activities in Nekemte Town are also seasonal. The aggregate of these limitations results in weak spatial and sectoral linkages between the Town and its hinterlands which led to poor LED.

Small-Businesses- Most of the female respondents were engaged in making food and drinks for local markets. They also make and sell local drinks such as *farsoo* and *bookaa* (locally made beer), and tea/coffees shops. They also do petty trading/street vending at Nekemte and Uke markets where they sell products such as vegetables and fruits along streets of the Towns. Of the female street vendors, the majority are household heads because they are the only ones who are responsible for the welfare of their family. In Bandira market centre situated in the Negassa FA, the farmer-traders (working as commission agents) collect agricultural products such as cereal, oilseeds and animal products including butter from their fellow farmers and sell at Nekemte market. They usually get initial capital to run the business from traders in Nekemte Town who collect the products from them. The income they get from such diversification helps them feed their families which the DA called a 'coping mechanism'.

maize. They are usually businessmen coming from within the Oromia region and beyond.

One such farmer explains:

> *Farmers try to cope up with livelihood difficulties by diversifying and mixing activities. Shortage of land, poor land productivity and low purchasing power to buy modern agricultural inputs all contribute to the subsistence production in this area. They supplement their small-scale farm by other allied farming activities viz. apiary, rearing poultry, and grains trading among others (*PI, female DA in Negassa FA).

Most of the respondents indicate that they diversify their activities as they are food insecure particularly during summer seasons (June, July, and August) when there are limited non-farm activities in both Nekemte and Uke district Towns. The businesses of the small traders are also not strong enough to support their livelihoods. An interview with a grain collector in Uke FA illuminates that he has some doubts about the sustainability of his business and that is why he and his wife run another business to support their livelihood. He is a buyer based in Uke district Town but also is a farmer. He stations his scales in front of his house where he collects maize from farmers and sells to other traders/ collectors at the end of the day. At the same time, he supervises a small business which his wife runs during the two market days of the district Town (Tuesdays and Fridays).

He explains the condition of his business as follows:

> *I do not depend only on grain trading. I have farm fields and other small business in this Town to support my livelihood in case my trading business fails* (PI, male collector in Uke FA).

His wife makes *booka* and sells it at her house. This business is a shared family or household business because while the wife is in charge of mostly the indoor business, the husband is responsible for the outdoor business. Though the husband consults his wife on how, where, and when to spend the money obtained from the indoor and outdoor businesses in his family, the final decision is usually made by the husband as per the communities' social norm (Geleta et al. 2015).

4.1.2. The Urban Part of LED in Guto Gidda District

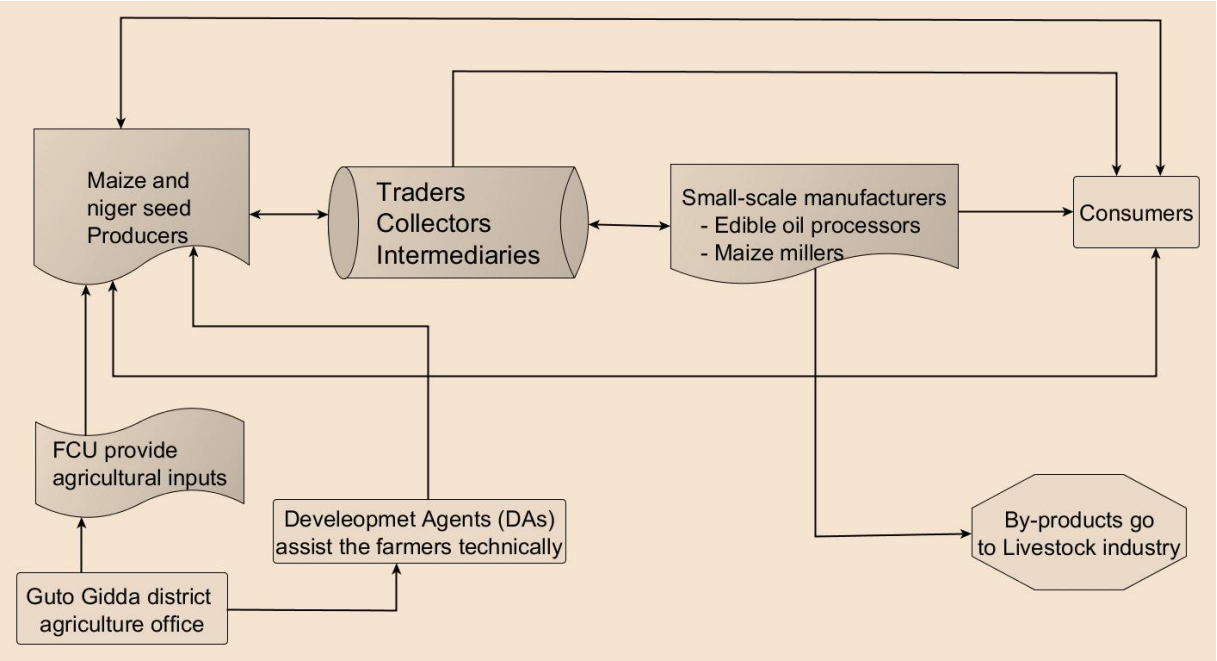
The connection the value chain actors - such as traders, small-scale manufacturers, and government workers - have with rural areas has direct implications for the nature and forms of rural-urban linkages in specific localities. This, in turn, influences LED processes. Nekemte Town and other district Towns and marketplaces are the sources of semi-processed products, agricultural inputs, and employment opportunities. They are also a place where the rural products under study are exchanged and should be able to stimulate LED.

Maize and Niger Seed Value Chain- Despite the constraints, data from the field indicate that value chain does exist between urban and rural areas in Guto Gidda district. The major actors include farmers, traders[20], small-scale manufacturers (processors), FCU and agricultural office. The district agricultural office provides agricultural inputs viz. fertilisers, seeds and technical assistances to the farmers through FCU and DAs. FCU provide the inputs to the farmers (who can afford to buy). The DAs technically help the farmers in the production processes. The farmers produce maize and niger seed grains for local (and beyond) consumption. Traders and

[20]Traders in this study include local retailers and collectors (big traders); local collectors and intermediaries (small traders); and external retailers (bigger traders).

intermediaries buy the grains from the farmers and sell on to the consumers and processors. They also buy niger seed oil from the processors, transport and distribute it to the consumers and other collectors within Guto Gidda district and also to the surrounding districts. Processors produce edible oil from niger seed. Millers do maize grinding to produce maize flour for consumption (Figure 6.2). The small-scale manufacturers also buy maize and niger seed directly from the producers. Finally, the by-products from the agro-processing go to the livestock industry.

Figure 6.2 Maize and Niger Seed Value Chain Diagram in Guto Gidda District



Small Urban Traders- Small traders are one of the key value chain actors. All of these traders interviewed in Uke district Town have a business relationship with traders in Nekemte Town. They usually collect grains (maize and niger seed) from farmers at the farm gate or Uke market centre and sell them on to bigger traders/collectors in Nekemte Town. The majority of the local collectors/buyers also borrow money from Nekemte Town traders to whom they then sell the grains. This indicates a relatively strong mutual trade relationship between the two. Even

though this trade relationship helps their business in one way, the small collectors are required to sell back to the collectors/traders who provided the initial money to buy the maize and niger seed. This limits their freedom to look for better prices for their collected grains. The bigger traders determine the price which makes more advantage for them than the small traders.

The capacity of urban centres in providing the necessary resources for the rural areas in its vicinity dictates the linkages between the two. Nekemte Town (and other district Towns such as Uke) have a poor capacity to stimulate effective LED because of their inability to provide the necessary services to the rural hinterlands (and to their residents). The negative impact from the shortage or lack of finance on LED in urban areas is significant. The urban poor and small-scale traders have similar problems to their rural counterparts when seeking to develop small businesses. In response to the question *'How do you evaluate the raw-material supply and processing capacity of your firm*', an edible oil processor in Nekemte Town responded as follows:

> *Farmers sell niger seed during peak times. During lean times, it is difficult to get the raw material. I cannot afford to buy large quantities and store in a warehouse to continuously process edible oil. Therefore, I buy a bit, process, sell the oil, and then use the money to buy the raw material again. It is just this cycle* (PI, male processors in Nekemte Town).

The processor's response not only tells us about the subsistence nature of the production. It also indicates financial problem limiting his capacity to buy more grains during peak times and store in his warehouse to continuously process niger seed oil for the market even during production lean times.

Inter-regional Traders- The study also indicates that the maize buyers/collectors in Uke district Town come either from the region or bordering regions showing the significance of the centre not only to the district but also to other surrounding districts and regions. Larger traders are mostly involved in the interregional trade and small traders/intermediaries carryout inter-district trade. The small traders or the representatives of the large traders collect the cereals and oilseeds from the farm gate and in turn sell to the large traders in the district Towns. Uke district Town is a centre of business, particularly where most of the agricultural products from the Northwest of the district and other bordering districts of Amhara (11^0 30" 00" N and 38^0 30' 00" E) and Benishangul (11^0 0' 0 N and 35^0 30' 0 E) regions converge. Therefore, this small Town is the centre for most agricultural production transactions. An interview with a collector/buyer in Uke district Town underlines the role the centre plays in the economic development of the locality:

> *I collect maize from both farmers and other small collectors and sell to traders coming from even as far as Mekele Town (in Tigray Region). They come with their trucks and collect from the local collectors* (PI, male local collector in Uke FA).

Uke district Town is not only the centre of domestic trade; it serves as a source of production for external markets coming into the district. Domestically, farmers easily get their grains to the centre after travelling short distances using mostly mule-drawn carts. Traders and collectors also come from Nekemte Town on Tuesdays and Fridays, the two market days of Uke district Town. From outside Oromia region, buyers visit Uke market from Tigray and Amhara Regions in the north and Benishangul-Gumz region in the west. Others also come from within the region, but out of the district and Zone such as Harar from east Oromia Region. These external buyers mostly come on bigger market days (Tuesday). Before they come with their trucks, they

would contact the local bigger collectors/traders to ensure they can get ample amounts of grains (mainly maize). The local traders then collect the maize from the farmers, store in their warehouses, and inform the external traders to come and buy. By this process, Uke district Town benefits from the external buyers generating more income for the district as the external buyers use the services the centre provides including bar and restaurant. This also encourages diversification of activities in the locality following the market demands.

4.1.3. Why Rural-urban Linkages Remained Weak?

The lack of a clearly defined policy framework to strengthen rural-urban economic linkages across Ethiopia contributes to the weak rural-urban linkages in the study area (Zewdu & Malek 2010). Apart from acknowledging the significance of the linkages in LED processes (MoUD 2009), the specific roles of urban centres and their relationships with their hinterlands are not articulated in the development policy of the country. Nekemte city administration and Guto Gidda district each has distinct development plans despite on-ground and inevitable linkages between the two. The current economic linkages between Nekemte Town and its hinterlands could have improved if the local government were to implement the rural-urban integrated development plan. However, local officials have never consulted farmers and other value chain actors about how best to link rural development plan to urban development plan.

5.1. Discussion of findings

4.2.1. Rural-urban Linkages in Guto Gidda District

The mutual relationship between urban and rural areas is vital for LED. Nekemte Town and Uke district Town play an instrumental role in the LED process of the district by transforming

the economies of both the urban and rural areas. They serve as markets and service centres for local agricultural producers. They also provide retail outlets and services for populations living in and around the cities. Particularly Uke district Town is very close to the farmers where they can easily sell their products without incurring additional costs such as transport cost. Some farmers own businesses in this Town which help them to generate income from non-farm activities. In fact, the majority (about 75 percent) of rural residents elsewhere in Oromia region move to their nearby Towns (Dera and Iteya Towns) in search for casual wage labour jobs (Gibson & Gurmu 2012). Uke district Town also helps as a connection point for domestic (district) and external traders that generates more income for the district (Satterthwaite & Tacoli 2003). The external buyers use the service the district Town provides including bar and restaurant which adds to the local economy. This also encourages the diversification of activities in the locality following the local market demands.

Diversification of economic activities is not necessarily the result of economic growth. In theory, rural-urban linkages facilitate diversification, particularly in the rural areas. Under normal conditions, higher income in rural population is positively correlated with diversification fulfilling the 'virtuous circle' of rural–urban linkages and development (Tacoli 2004). Results in Guto Gidda district, however, show that diversification is mostly a 'survival strategy' (Figure 3) aiming at risk avoidance, and used as a temporary remedy for poverty reduction rather than a strategy capable of increasing income (Manjur et al. 2014).This diversification is not the result of capital and asset accumulation except the case of large-scale farmers and traders which may be attributed to better market intelligence and access to the large-scale farmers and traders. Rather, it is the result of agricultural push factors aimed at survival and/or risk management strategy (Fenton 2013; Assan 2014). These push factors include the shortage of farmland, low land productivity, and lack of capital, which all lead to

food insecurity. These factors and others such as increased costs of agricultural inputs, the absence of modern irrigation schemes, and low dedication of DAs are documented major constraints of agricultural productivity in the district. This strategy, in turn, aims at risk reduction, overcoming seasonal fluctuations, and responding to shocks and stresses coming from within and without (such as erratic rainfall, poor pricing, poor social services, and poor roads), which are temporary remedies. However, this diversification clearly contributes to the production-consumption linkages between urban and rural areas.

The shortages and low productivity of farmland and unaffordability of agricultural inputs resulted in subsistence production among the farmers. This low productivity led to low supply to the market which weakened the forward and backward sectoral linkages between agriculture and non-agriculture sectors and resulted in weak LED. The non-farm/off-farm activities are unable to provide continuous income as they are casual jobs, and thus, are a temporary remedy for food security. When it is time for cultivation, the farmers resort to their small-scale farm which completes the 'survival' strategy of rural-urban linkages.

4.2.2. Spontaneous Rural-urban Linkages

Unorganised rural-urban linkages may not well forge LED processes. There are ad hoc mutual interdependencies between the people living in urban and rural areas through production-consumption linkages that influence the livelihoods of the people and ultimately the LED processes in the study area. However, these linkages are unable to generate effective and strong resource cycles between rural and urban areas because of contextual factors such as lack of infrastructure, access to land, credit and policy guidance and coordinated planning between the

two (Adugna & Hailemariam 2011). These barriers impact negatively upon the sectoral forward and backward linkages between agriculture and industry thus contributing to weak LED at present.

The economy of the district is at subsistent scale. The capacity of the two areas to provide to each other with sufficient quantities of commodities is challenged. The absence of surplus production in rural areas contributes to the low development of agro-processing industries in Nekemte Town. The rural population suffers interwoven problems of poverty including low productivity, low purchasing power, shortage of land, and limited access to credit. The majority of rural residents cannot afford to buy (semi) processed urban products such as edible oil, sugar, and agricultural inputs (Zewdu & Malek 2010). This condition also applies to some of the urban poor who have no informal or family relations with the rural households to access rural products and have insufficient monies to purchase from urban markets. The ability of farmers to maximise market access for their products is also challenged by poor infrastructure such as lack of access to good market information (how markets operate) as these reinforce local interactions. The absence of employment opportunities in the non-farm sector in Nekemte Town also contributed to the low level of income both in urban and rural areas.

In a nutshell, the weak linkages between Nekemte and its hinterlands negatively impacted the development of the locality. Diversification in the study area is not only limited to non/off-farm activities. It is also income diversification which includes activities that could be strategically allied to or are complementary to their primary source of income (Alemu 2012). Most rural and urban households rely on the combination of farm and non-farm activities mainly to reduce risk

and uncertainties of poverty. However, it does not go beyond subsistence production and thus, its contribution to sustainable LED is negligible.

The farmers, traders, and small-scale manufacturers engage in rural-urban linkages as a self-guided survival strategy. The lack of policy guidance and strategic direction means that poverty remains endemic and deeply embedded. This also resulted in the absence of commonly shared rural-urban development plan dialogue among the people of both areas leading linkages that cannot generate a strong LED. The current sectoral LED project of Nekemte Town acknowledges the importance of rural-urban linkages for sustainable urban development. It stresses the need to give particular attention to those economic sectors that foster and enhance rural-urban linkages specifically prioritising the development of micro and small scale enterprises (MSEs). Thus, the rural-urban linkage is one of the major criteria for the LED project (FDRE & UNDP 2012). Unfortunately, there is no mention of representation from the rural areas as its aim of bringing different actors together to plan, implement and manage initiatives to stimulate this urban-based LED processes.

5. Conclusions and Recommendations

The study revealed that the spatial and sectoral linkages between Nekemte and its hinterlands are challenged by factors related to infrastructure, production capacity, lack of guidance and coordinated planning, and low purchasing power of most of the people. The absence of employment opportunities in the non-farm sector in the Town contributes to the low level of income both in the Town and rural areas. The subsistent nature of production in the rural areas hampers the rural areas' capacity to meet the demands of the urban residents. Nekemte Town too is unable to provide sufficient semi-processed and processed products, and this led to weak

rural-urban linkages and local economy. The national government lacks a sufficiently strong policy framework to enhance rural-urban linkages, and there is a persistence of a sector-based LED process. Further, the potential linkages between Nekemte and its hinterlands are challenged by a lack of reliable market information between the farmers and traders. As a result, rural-urban linkages in Guto Gidda district are prone to mistrust and multiple inefficiencies.

The study recommends development of innovative marketing relationships between the value chain actors including farmers, traders, and small-scale manufacturers to encourage the flow of reliable market information. This could strengthen the urban-rural linkages, help bridge the existing divide, and promote mutually beneficial feedback loops to generate a stronger local economy. Levels of production can be increased by facilitating the access of farmers to affordable modern agricultural inputs, extension, and favourable rural microfinance. Microfinance services are necessary to assist farmers to buy agricultural inputs otherwise they will not develop the capacity to meet market demand. In parallel, markets need to be strengthened in order to ensure farmers can recoup their investments. A continuous, reliable and sufficient supply of raw materials to urban residents is required to help to improve the processing capacity of the urban areas to generate strong local economies.

The development of an integrated LED process in collaboration with stakeholders from both urban and rural areas from design, piloting, through to implementation and evaluation is important. This will help to improve value chain governance mechanisms and strengthen transparency, thus enhancing trust. Appropriate social networks of individuals that strengthen social interactions and healthy personal relationships among the people through indigenous

institutions could improve the production capacity of the farmers and facilitate the rural-urban linkages. Establishing better institutional arrangements such as a well-developed marketing structure could also strengthen the linkages. Improved provision of physical infrastructures such as rural feeder roads, and better and more reliable power supplies will facilitate the flow of resources between the urban and rural areas and increase the processing capacity of edible oil processors.

Chapter 7: Conclusions

7.1. Introduction

The purpose of this chapter is to summarise the results of the research from across the papers in this thesis and demonstrate the overall contribution of the research in light of the aims and research questions presented in the introduction. This study takes a methodologically innovative approach to study LED processes by applying multiple methods of data collection and anlysis. The study applied an ethnographic method to collect data related to the flows of production, people, finance and information between Nekemte and its hinterlands in Guto Gidda district in Ethiopia. It conceptualised LED as a process that links rural and urban areas. Unlike narrow locality-focused ethnographic studies, this study sought to understand the rural-urban linkages theorised as central to LED processes. The study therefore explored economic relationships across Nekemte Town and its hinterlands in Guto Gidda district, collecting in-depth ethnographic data on the flows of production, people, finance and information.

Netchain analysis and institutional analysis were applied to analyse the data. Netchain analysis has been applied to study inter-organisational information systems and relationships mostly in the developed world. This study, nonetheless, used the analytical apprach in the context of developing countries and beyond the business of commodity chain study to analyse the flows of peopele, production, information and finance between Nekemte and its surroundings that influenced the LED processes. It further included the social capital aspect of the relationships between and within individuals and firms. The firms included in the study were small-scale processors to a level of one person or one family. Institutional analysis was applied to analyse the influences of local institutions on LED processes. Institutional analysis enabled me to understand how institutions work, how people respond to the different types of institutions and the relationships between the institutions in LED processes.

This project combined different analytical approaches of value chain, supply chain and networks into netchain analysis to analyse the data and understand the drivers of LED processes in the study area. Value chain and supply chain studies mainly focus on the relationships between a firm and its buyers and suppliers (vertical linkages) while network analysis is concerned with the formal or informal relationship between individuals/firms performing similar functions (horizontal linkages). The netchain analytical approach simultaneously analyses both vertical and horizontal linkages between LED actors to understand LED processes.

Further, the traditional chain approaches are mainly applied in the study of commodity chains in a business scenario. This study applied netchain analysis to the context of small firms in a developing economy context. The netchain approach has been employed in previous studies to study large firms in developed economies. By adapting this analytical approach to a different setting, this project studied the flows of grains (maize and niger seed), people, finance and market information between Nekemte and its hinterlands and the implications of these flows in LED processes (Chapter Four). The netchain approach in this study examines the social capital aspect of the relationship between and among the LED actors.

Ethiopia has been implementing a decentralised system of governance since 1991 with a framework creating an environment conducive to undertaking LED processes. These development policy frameworks include the Sustainable Development and Poverty Reduction Programme (SDPRP), the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP), and the First and Second Growth and Transformation Plan (GTP1 and GTP2) (FDRE 2002; MoFED 2005; FDRE 2010; FDRE 2015). In all the successive development

policy frameworks, the need to strengthen rural-urban linkages to maximise growth and reduce poverty was mentioned. The aim was to strengthen these linkages through strengthening market integration, labour mobility, and access to income-earning opportunities between urban and rural areas. The importance of improving infrastructure (including rural access roads, telecommunication, and rural electrification) and development of small-scale credit markets as key instruments to facilitate rural-urban linkages were also documented in the policy frameworks.

Decentralised governance is one of the key guiding principles to foster LED processes in Ethiopia. A carefully designed decentralisation policy would bring policy-makers closer to the public, allow citizens to voice their demands and better monitor the performance of the responsible bureaucrats. Decentralisation plays an instrumental role in improving basic service delivery (Fritzen & Lim 2006). LED is generally a 'bottom-up' development approach seeking to unleash the development potential of a locality. According to this definition, unleashing the potential of a locality transcends the rural/urban boundary as resources flow from rural to urban areas and vise versa. The LED process in Ethiopia, however, is sectoral in practice focusing on urban areas and disregarding the linkages between the two. This is one of the major challenges of a successful and strong local economy in the country.

Despite these policy moves, the linkages between urban and rural areas remain weak and unable to generate the economic growth objectives which these plans aspire to achieve. The development plans to strengthen the rural-urban linkages remain on paper with poor implementation. The current practices of development policy implementation rather encourage the traditional dichotomous approach to the LED processes. For instance, the LED process launched in 2009 in the country follows sectoral development planning processes with a strong

focus on urban areas while overlooking the rural sector of LED. This urban-focused LED process was implemented from 2009 to 2015 in two phases in selected cities or Towns in the country (FDRE & UNDP 2012). The government lacks a sufficiently strong policy framework to enhance rural-urban linkages, and thus, there is a persistence of a sector-based LED processes. The spontaneous economic linkages between urban and rural areas are unable to generate strong resource cycles between the two areas. This is because of factors such as lack of infrastructure, shortage or lack of agricultural land, lack of credit facilities and lack of policy guidance and coordinated planning between the two (Adugna & Hailemariam 2011).

The aim of the study is to understand the nature and drivers of LED processes by analysing rural-urban linkages in Guto Gidda district using maize and niger seed value chains. The research sought to answer the following research questions:

- How is the term LED understood from the different perspectives of local development actors in Guto Gidda district?
- What are the direction, scale, and nature of flows of goods, people and information between urban and rural areas and within the respective geographic areas?
- What are the factors affecting the existing rural-urban linkages and LED in the study area?
- What are the implications of rural-urban linkages for LED of Guto Gidda district?
- What role do local institutions play in LED processes in Guto Gidda district?
- What framework of action needs to be in place to foster rural-urban linkages for strong local development in Guto Gidda district?

The study used an ethnographic method to collect data through in-depth interviews. The data were analysed using descriptive qualitative methods. Boyatzis (1998) recommends the use of Nvivo to form themes for qualitative data analysis. The themes generated using Nvivo in this study include the relevance of agro-processing to LED processes, grain marketing and LED processes, and the relevance of the LED actors' relationships to the LED processes. Netchain analysis using the NVivo themes was used to analyse maize and niger seed value chains and LED processes. Institutional analysis of a case study was used to analyse the relevance of local institutions to LED processes.

This study focuses on the assessment of rural-urban linkages and LED processes taking a case study from Guto Gidda district of Oromia region. The study used maize and niger seed value chains between Nekemte and its hinterlands to study the type, nature, strengths, and weaknesses of the linkages; and the impacts of the linkages on the development of the locality. Maize and niger seed play an important role in the LED processes in the study area. They are the most popular crops almost exclusively produced by smallholder farmers for local consumption. The study was based on the constructivist ontological view (Della Porta & Keating 2008; Klenke 2008) where knowledge is socially constructed with no single, observable reality (Merriam 2009). Following this philosophical ground, the study applied a qualitative case study method involving an empirical investigation of a particular contemporary phenomenon within its real-life context (Iacono et al 2010).

The research applied a purposive sampling technique using snowball sampling procedure to select research participants. The participants interviewed include farm households, traders, millers, edible oil processors and Development Agents both in Nekemte Town and the

surrounding villages in Guto Gidda district. An expert from the LED office of Nekemte Town was also consulted. Both primary and secondary data were used in the study. Primary data pertaining to the flows of people, grains, market information, and finance were collected from farmers, traders, and small-scale manufacturers through ethnographic interviewing and observation. Local authorities such as agricultural extension workers (Development Agents) and district officials were also interviewed. Secondary data at the district level were also reviewed. This study applied the principle of data saturation and attainment of quality (Saunders, Lewis, & Thornhill 2009). Netchain analysis was used to analyse maize and niger seed value chains and how they contribute to LED. The roles the local institutions play in the LED processes are analysed using institutional analysis of a case study.

7.2. Key findings

This thesis comprises five stand-alone papers (one conceptual paper and four empirical papers). Results from the study area identified four key points regarding rural-urban linkages and LED processes in Ethiopia. These critical points include 1) the need to conceptualise LED processes from the point of view of rural-urban linkages; 2) the observation that rural-urban linkages remain weak despite a policy move towards facilitating the linkages; 3) the observation that the spontaneous resource flows between Nekemte and its hinterlands are unable to generate a strong LED; and 4) the importance of strengthening rural-urban linkages for a strong local economy. These key points are further elaborated below.

The first paper, presented in Chapter Two, details the conceptual framework for the research. The proposed conceptual framework of netchain analysis helped in the understanding of LED actors, processes and linkages between Nekemte Town and its hinterlands in Guto Gidda

district. This study selected a netchain analytical approach after comparing and contrasting it with the other analytical approaches of value chain, supply chain, and networks in the literature. Value chain and supply chain are applied in the study of vertical linkages involving the upstream and downstream flows of people, production and information between producers, traders, processors and finally consumers. Networks are mostly applied to study horizontal linkages between chain actors focusing on the social capital. Nonetheless, in the study of LED processes involving rural-urban linkages, both the vertical and horizontal linkages are equally important. Netchain analysis incorporates all the three analytical approaches of value chain, supply chain, and networks. Therefore, the netchain is the best analytical approach to study rural-urban linkages and LED processes.

The first emperical paper detailed in Chapter Three explores the drivers of LED from the local economic actors' perspectives in Nekemte Town and its hinterlands to unpack LED proccesses. It answers the first research question of how LED process is understood from the different perspectives of the local actors in Guto Gidda district. The results of this study demonstrate, through in-depth empirical data, that LED is a process of economic actors interacting to create economic outcomes in a locality that has to be understood in the context of linkages between the rural and urban areas.

LED practices in Ethiopia have been dichotomous, considering the rural and urban areas as a separate entity (FDRE & UNDP 2012). Some literature also limits the concept of LED to urban areas (MWUD 2006; Heideman 2011; Rodríguez-Pose & Palavicini-Corona 2013). This dichotomous conceptualisation has been one of the major hindering factors for successful LED processes in the country. Municipal governments assume that local development is confined

within the urban boundary. However, there are significant linkages between the urban and rural areas through the flows of agricultural products, people, finance, and information influencing the LED processes. Municipalities cannot solve their internal problems such as unemployment and food shortage on their own. Rural residents need processed and semi-processed products and financial services among others in the urban areas for their livelihood. This research argues, based on data, that the flows of resources between Nekemte and its hinterlands comprise a system in which LED processes take place along the rural-urban linkages rather than a dichotomy between the two. Therefore, understanding rural-urban linkages is a prerequisite for a better understanding of LED processes.

The second empirical paper in Chapter Four identifies some of the underlying causes contributing to weak rural-urban linkages using netchain analysis of maize and niger seed value chains. It discusses the direction, scale, and nature of flows of commodities, people and information between Nekemte and its hinterlands and within respective geographic areas. Results from this paper suggest that factors including inefficient agricultural practices, high costs and limited accessibility of agricultural inputs, and lack of credit facilities negatively impacted the maize and niger seed value chains in Guto Gidda district. Further, traders dominate grain marketing by distorting prices leading to volatile and unpredictable price structures. Grain processing (of niger seed in particular) is characterised by traditional and small crushing facilities with inadequate capacity, low hygiene and lack of safety standards.

Chapter Five of the thesis presents the third empirical paper. As part of its aim, this paper identifies some of the underlying causes contributing to weak rural-urban linkages in the study area. It investigates the contributions of local institutions to LED processes in Guto Gidda district using institutional analysis of a case study. Institutions in this study are defined as both

the government and indigenous rules or norms that guide people's actions within societies in LED processes. Using institutional analysis, this study identified three different types of local institutions: local government institutions, indigenous institutions and the Farmers' Cooperative Union (FCU). Through in-depth interviews, the study also observed four different kinds of institutional relationships: complementary, accommodating, substitutive, and competing. The results of the study show that local development actors prefer indigenous institutions to the other types of institution (particularly the government institutions) because of the more easily accessible services the indigenous institutions provide. The indigenous institutions are also less reliant on party affiliation. Further, the indigenous institutions facilitate social capital stimulating mutual collaborations in their livelihoods. The study also identified that complementing and accommodating institutional relationships foster LED processes as the two institutions collaborate in LED processes. Substituting and competing institutional relationships weaken LED processes.

The last empirical paper presented in Chapter Six of the thesis identifies major obstacles to maximising values from rural-urban linkages and LED and suggests possible ways to bridge the rural-urban divide to help strengthen LED in Guto Gidda district. Results of the study indicate that despite the enabling policy of the government to facilitate rural-urban linkages, the linkages in the district remain weak to improve the overall local economies. The study underlines the importance of investments in rural feeder roads, improved provision of rural microfinance and access to market information, and ensuring affordable agricultural inputs to improve rural-urban linkages. These actions eventually strengthen the development of the locality.

7.2.1. Netchain Analysis of Maize and Niger Seed Value Chains in Guto Gida District

Netchain approach enables the analysis and understanding of the interplays between and among key actors in the rural-urban linkages and LED processes where the firms are quite small to a level of one person or one family, and the influence of social relationships on the agro-business is high. Focusing solely on value chain and supply chain would result in overlooking the horizontal linkages and vice versa. In Chapter Four, this study applied the netchain analysis to study maize and niger seed value chains in Guto Gidda district. This analytical approach was selected after comparing and contrasting it with the other analytical approaches in literature (Chapter Two).

This case study in Guto Gidda district demonstrated that netchain analysis has the capacity to simultaneously analyse the vertical and horizontal linkages between firms or individuals for a strong local economy that the other approaches fail to do (Chapter Four). The flows of resources between Nekemte Town and its surroundings have direct implications for the development of the locality. Using the netchain analysis, the study is able to show a diagrammatic representation of maize and niger seed netchain in which the strengths, directions, and balances of the vertical and horizontal linkages are depicted. Results indicate that low productivity and limited access to inputs and credit facilities are among the factors negatively affecting the maize and niger seed production and processing in the study area. The grain market is dominated by traders/intermediaries distorting the prices. Lack of trust between producers and traders is another key constraint to the resource flows between Nekemte and its surroundings. Maize and niger seed netchain is also influenced by poor infrastructure to facilitate the netchain in areas of market information and hard infrastructure linking producers and processors. The traditional ‘chain’ studies of value chains, supply chains, or networks are

unable to articulate these complex interrelationships among and between the netchain actors in the LED processes.

The chains are observed along upstream and downstream flows (vertical linkages) of people, grains, and market information between farmers, traders, processors and finally consumers. The networks indicate the horizontal interrelationship between and within the members of the netchain. Following O'Toole Jr and Montjoy (1984) terminologies, the type of the relationships can be pooled, sequential, or reciprocal relationships. Farmers produce maize and niger seed and sell on to the traders. Processors buy the grains either from the farmers or traders/collectors and produce maize flour and edible oil for consumption. This relationship is sequential as there are direct serial relationships between the actors. The farmers-farmer relationship was identified as reciprocal interdependence representing horizontal linkages because of the influence of local indigenous institutions discussed in Chapter Five. Pooled relationship is observed among the processors as they perform their activities independently with sparse and indirect relationships. This categorisation indicates the importance of both the vertical and horizontal linkages between and among actors in the LED processes.

Traditional 'chain studies' are applied mostly in commodity chain analysis focusing on vertical linkages between firms. These linkages are linear involving the actors designing, producing, marketing, and distributing goods or services (Trienekens 2011) and are analysed through the lens of supply chain and value chain. Supply chain focuses on the upstream flows of resources by improving efficiency and reducing wastes. Value chain, on the other hand, focuses on the downstream resource flows by creating values in the eyes of customers. Both, however, overlap in the whole system of interaction between firms to provide goods and services (Ramsay 2005). Another aspect of 'chain studies' is the network which emphasises horizontal

linkages between firms (Powell 1990). The network plays a key role in developing social capital among actors in the LED processes. Results from this study observed that both vertical and horizontal linkages significantly contribute to strengthening rural-urban linkages and LED as actors interact vertically and horizontally in a complex system of LED processes.

7.2.2. The Need to Conceptualise LED from the Local Actors' Perspectives

Different actors in local development have a different understanding about LED processes. These conceptual variations have a direct or indirect influence on LED as every community has unique local conditions that either help or hinder LED. Therefore, attention to local actors' perspectives is crucial for the success of LED processes. Chapter Three unpacked LED by triangulating data collected from various LED actors in both Nekemte and its surroundings areas and reviewing the literature on LED. The case study indicates that the government of Ethiopia practises sectoral LED processes which mainly focus on urban LED overlooking the rural sector's contribution. At the policy level, the government recognises the significance of urban and rural areas in conceptualising LED processes, but this case study showed that, in particular LED in Guto Gidda district is sectoral, only focusing on Nekemte Town.

Speaking with the local people in both the urban and rural areas, it was clear that LED needs to be understood in the context of rural-urban linkages because urban areas are linked to their surroundings through the flows of production, people, finance and information. Rural-urban linkages channel these resources from producers to consumers creating economic benefits for the people and the locality which shape local development processes. Results presented in this study revealed that farmers sell their products to consumers in Nekemte Town and get better income that helps them cover their minimum household expenses. Small-scale manufacturers (millers and edible oil processors) get maize and niger seed grains from the farmers

surrounding the Town. Traders usually commute between Nekemte Town and its surroundings for their grain marketing businesses. Particularly, retailers and collectors have a good understanding of the significance of rural-urban linkages for LED, emphasising the contributions of infrastructure in strengthening the linkages (Chapter Three).

The dichotomous view of the rural and urban development approach is a major hindering factor for successful LED processes. Municipal governments assume that local development is confined within the urban boundary despite the significant rural-urban linkages through the flows of commodities, people, and information. However, municipalities cannot solve their internal problems such as unemployment and food shortage on their own. Rural areas also need to access processed and semi-processed products and financial services among others from the urban areas for their livelihood. From the result of this study, development policy-makers can draw lessons that local actors' understanding of the economic linkages between the urban and rural areas is crucial for a successful development of a locality. The nature and extent of economic linkages through production, consumption, employment and financial linkages, and various economic and social service provision between Towns and their hinterland constitute key factors shaping LED processes (Wandschneider 2004).

7.2.3. Rural-urban Linkages Remain Weak in the Guto Gidda District

Ethiopia's development policy acknowledges the significance of rural-urban linkages in the LED processes. Nonetheless, the specific roles of both the urban and rural areas in their relationships with one another are not articulated in the development policy of the country. Nekemte city administration and Guto Gidda district have their distinct local development plans despite the on-ground linkages between the two. Some of the underlying factors

contributing to the weak rural-urban linkages in the study area are related to production, marketing, and processing of agricultural products.

In Chapter Four and Chapter Six, the study reviewed the Ethiopian government's successive development policies regarding rural-urban linkages for a better LED processes (MoFED 2005; FDRE 2010 2015). By analysing the flows of people, commodities, finance, and information between Nekemte Town and its hinterlands, this study demonstrated that despite the enabling policy of the government to facilitate rural-urban linkages in Ethiopia, the linkages remain weak. This resulted in a weak performance of the development of the locality.

Results in this study further observed that the subsistent nature of the economy of Guto Gidda district challenges the capacity of the two areas to provide each other with sufficient quantities of commodities. The absence of surplus production in rural areas contributes to the low development of agro-processing industries in Nekemte Town. Maize and niger seed supply is limited because of farmers' inefficient agricultural practices, high costs and limited accessibility of inputs, and lack or shortage of farmland. Shortage of farmland is a critical problem hindering the full potential of the producers where the smallholder farmers suffer from low productivity and end up in subsistent production.

Due to the high costs of agricultural inputs such as fertilisers, improved seeds, and others, a majority of the farmers are unable to afford to buy the inputs. Lack of credit facilities also challenges the production and processing in the study area. The aggregate of these problems resulted in shortages of supplies of agricultural products to the market. The shortages of supply

in turn weaken the linkages between agriculture and non-agriculture sectors and eventually weakened the LED processes. Increasing the production capacity of the rural people through enhanced and affordable modern agricultural technology and provision of rural microfinance stimulate the flows of resources between the urban and rural areas.

The potential linkages between Nekemte and its hinterlands are further challenged by a lack of reliable market information between the farmers and traders. Lack of coordination and trust between value chain actors and lack of sufficient infrastructure hamper effective flows of resources between Nekemte and its surroundings. Grain marketing is dominated by traders, whereby the producers are disadvantaged. Nekemte Town too is unable to provide sufficient (semi) processed products, and this led to weak rural-urban linkages. Further, grain processing is characterised by traditional and small crushing facilities with inadequate capacity, low hygiene and lack of safety standards. As a result, rural-urban linkages in Guto Gidda district are prone to mistrust and multiple inefficiencies (Chapter Four and Six).

The majority of rural residents cannot afford to buy (semi) processed urban products such as edible oil and agricultural inputs. The situation of low purchasing power also applies to some of the urban poor who have no informal or formal family relations with the rural households to access rural products and have insufficient monies to purchase from urban markets. The absence of employment opportunities in the non-farm sector in Nekemte Town also contributed to the low level of income both in urban and rural areas.

Despite the constraints, data from the field indicate that value chains do exist between urban and rural areas in Guto Gidda district. In Chapter Six, the paper totes that there are ad hoc

linkages between people in Nekemte Town and its surroundings mainly through production-consumption linkages. As Adell (1999) observed elsewhere, this paper also found out that there is no distinct boundary in defining urban and rural areas as rural people may be engaged in what are traditionally supposed to be urban-based activities and the urban people also practise farming activities. However, these linkages are unable to generate effective and strong resource cycles between the two areas because of contextual factors such as lack of infrastructure, access to land, credit and policy guidance and coordinated planning between the two (Adugna & Hailemariam 2011).

My findings also demonstrated similar results in relation to the lack of sufficient provision of infrastructure (both soft and hard) and that this negatively impacted the rural-urban linkages and LED in the study area. The farmers, traders, and small-scale manufacturers engage in rural-urban linkages as a self-guided survival strategy. The lack of policy guidance and strategic direction means that poverty remains endemic and deeply embedded. This also resulted in the absence of commonly shared rural-urban development plan dialogue among the people of both areas leading to linkages that cannot generate a strong LED.

Tacoli (2004) discusses the 'virtuous circle' of rural–urban linkages and development asserting that the higher the incomes from the production of agricultural goods for non-local markets, the more the demands for consumer goods among rural households leading to diversification. My study in Chapter Six, however, makes it clear that diversification is not necessarily the result of economic growth, yet can still contribute to rural-urban linkages. The study found that diversification in Guto Gidda district is mostly a 'survival strategy'. Manjur et al (2014) observed that diversification as a 'survival strategy' is mostly aimed at risk avoidance and that

it is used as a temporary remedy for poverty reduction. Fenton (2013) and Assan (2014) also argue that this kind of diversifation is the result of agricultural push factors. The farmers, traders, and small-scale manufacturers in the study area engage in off-farm and non-farm activities as a self-guided survival strategy. This implies that diversification can be present in the absence of economic growth.

7.2.4. The Need to Strengthen Rural-urban Linkages for a Strong Local Economy

Results of this study underline the need to strengthen the mutual relationship between Nekemte and its hinterlands for a strong and sustainable local economy in the district through: 1) implementation of a policy framework that encourages the economic interrelationships between urban and rural areas; 2) development of innovative marketing relationships between the value chain actors; 3) provision of the necessary infrastructure to facilitate the linkages; and 4) encouraging complementing and accommodating institutional functional linkages between the local institutions. These could strengthen the urban-rural linkages, help bridge the existing divide, and promote mutually beneficial feedback loops to generate a stronger local economy (Chapters Four and Six).

The factors negatively impacting rural-urban linkages are identified with the techniques of tackling the problems in Chapters Four, Chapter Five, and Chapter Six of the research. Chapter Four identifies three core areas the local development actors (particularly the local government and local development policy-makers) need to work on to improve the production, marketing, and processing of maize and niger seed which stimulate LED: a) enhancing production by supporting the farmers to produce more through modern agriculture technologies and eventually supporting their livelihoods; b) advancing market information access to all the stakeholders in the chain; and c) extending basic infrastructure between and within rural and

urban areas including road, electric power, and IT among others to accelerate the agro-processing.

Chapter Five argues that indigenous and government local institutions can facilitate LED processes by reducing transaction costs, enhancing social capital, and creating enabling environments for business to flourish. This chapter used institutional analysis of a case study (after Woodhill, 2010) to assess the impacts of local institutions on LED processes. Using this framework, three different types of local institutions are identified: local government institutions, indigenous institutions and the Farmers' Cooperative Union (FCU). The study further indicated that the presence of the local institutions does not guarantee a strong LED processes unless the actors accept and practice the institutions in the LED processes. Previous studies found complementary, accommodating, substitutive, and competing institutional relationships (Helmke & Levitsky 2004; Lekovic 2011; Vu, Zouikri & Deffains 2014). In practising the institutions, this study also noticed these four different kinds of institutional relationships among the local development actors.

Results show that both the local government and indigenous institutions play roles in LED processes in Guto Gidda district. They pool and allocate resources for production, create an environment where the people generate income and strengthen social capital among others. FCU is an institution sharing characteristics of both government and indigenous institutions in its activities. FCU is mainly involved in the provision of agricultural inputs. However, in Guto Gidda district, the indigenous institutions are more appealing to the local development actors than the government institutions because of the more accessible services they provide and because they are less reliant on party affiliation.

Indigenous institutions are culturally embedded and universally accepted practices based on the needs of the local people. They also facilitate social capital which, in turn, stimulates mutual collaboration and reduces transaction costs. The 'bridging' and 'bonding' effects of social capital in the indigenous institutions encourage the people to help each other during times of crisis, constituting their final 'safety net' (Woolcock & Narayan 2000; Beugelsdijk & Smulders 2003). Government institutions prioritise governance and security issues than production and productivity. This local actors' preference to accept and practise indigenous institutions rather than the local government institutions influenced the role they play in the LED processes as the actors show less willingness to contribute their parts in local government development-initiated projects.

Chapter Six offers approaches to achieve strong LED processes through strengthening rural-urban linkages. The government needs to play a guiding and coordinating role to lift rural and urban LED actors out of the poverty trap. Even though the two areas have a separate administrative structure in line with current Ethiopian decentralised governance structures, the planners of both areas could coordinate their work together to solve some of the obstacles to the development of the locality. The development of an integrated LED program in which people from both urban and rural areas are represented to participate from the plan of the program all the way to its implementation and evaluation stages is important. The district local government needs to coordinate the integrated development plan and facilitate the service provision along the rural-urban continuum. This may include the provision of fertilisers and improved seeds through techniques such as encouraging them to use natural fertiliser (like compost) and mixed farming system to recover the soil fertility, credit facility, and infrastructure.

The results assert that local development policy-makers need to strengthen the linkages and mutual collaboration between indigenous and government local institutions. Further, this chapter recommends the need to functionally link local government and indigenous institutions together which may not only encourage the actors' participation in LED processes but also develop their sense of ownership and confidence in LED processes. For this, there should be complementing and/or accommodating institutional relationships rather than substituting and competing relationships between the two types.

To summarise, the LED process in Ethiopia follows a dichotomous approach between rural and urban development practices which inhibited the development of both the urban and rural areas. The successive development policies so far since the adoption of the PASDEP in 2006 (MoFED 2005) lack practical implementation. This has been illustrated by the case study in Guto Gidda district presented in this thesis. Empirical evidence in Chapters Three, Four, Five, and Six has revealed that LED process in Guto Gidda district concentrates on Nekemte Town with inadequate attention given to the surrounding villages that provide the necessary resources to the Town. Because of this, rural-urban linkages in the district remain weak and unable to stimulate the district LED. In a nutshell, the conclusions drawn from the empirical papers on rural-urban linkages and LED in Guto Gidda district in Oromia, Ethiopia are:

- The concept of LED as a development process has no agreed upon definition because it is influenced by multiple and spatially differing local realities (Rogerson & Rogerson 2010). Most agree that LED is a 'bottom-up' development approach aiming at unleashing the development potentials of a locality. However, by closely focusing on the dynamics of specific localities, it is clear that LED is not just 'local'. Rather, it is a process that transcends the rural-urban divide to link the two areas together. Development policies the

governments (such as the government of Ethiopian) pursue greatly contribute to the misconception of LED process. Results presented in Chapter Three assert that understanding rural-urban linkages is a prerequisite for understanding LED processes.

- Agro-processing plays a significant role in rural-urban linkages through the flows of people, commodities, finance and market information between urban and rural areas. To study the flows of these resources between the two areas, researchers have been using value chain, supply chain, and networks as analytical approaches. While value chain and supply chain are better in studying vertical linkages, networks are mostly applied in horizontal linkage studies. The results presented in Chapter Three, however, argue that neither vertical linkages nor horizontal linkages can fully capture the multi-dimensional linkages between urban and rural areas in LED studies by themselves. It proposes the netchain approach (Lazzarini et al. 2001) that simultaneously analyses both vertical and horizontal linkages, particularly where the firms are quite small and the influence of social capital is strong. Using the netchain analysis, this study identified that rural-urban linkages remain weak in Guto Gidda district because of the subsistent nature of production and poor infrastructure coupled with poor implementation of a development process that links urban and rural areas in Ethiopia.

- Both the local government and indigenous institutions must be part of LED processes because both the institutions have room to play their roles in mobilising resources for a strong local economy (Uphoff 1992). Integrating these local institutions together is a key point for a successful LED process. The study in Guto Gidda district found that the local actors in LED processes prefer to accept indigenous institutions rather than local government institutions and this is a challenge for the development of the locality. Indigenous institutions are more appealing to the local development actors because they are

culturally embedded and universally accepted practices based on their local needs. The findings illustrate that disconnects between government and indigenous institutions encourage competition and duplication on the one hand and discourage collaboration among the institutions on the other hand. These lead to a lack of interest of the community to participate in development activities; a failure to access government resources like credit; and a wastage of resources eventually weakening the local economy. To avoid this weakening of local economy and to maximise the contributions of both the institutions to LED processes, mutual and collaborative functional linkages between the local government and indigenous institutions are critical.

- Bridging the divide between urban and rural areas is central to the national development policy direction because strong rural-urban linkages stimulate LED processes and eventually national development. The initiative to link rural and urban areas on paper needs to be followed by a sufficient policy framework for action. Results in Chapter Six identified three areas of interventions to bridge the rural-urban divide and strengthen the linkages between the two areas for a better and strong LED: a) development planners of both urban and rural areas have to have common platforms to coordinate their work together through an integrated LED program; b) reliable market information needs to be facilitated through provision of the necessary infrastructure and c) Guto Gidda district local government has to create an enabling environment for value chain actors to increase production and facilitate marketing and processing of products.

7.3. Reflections and Future research

This study is methodologically and conceptually innovative. It applied multiple methods of data collection and analysis to understand how local economic actors interact to create economic outcomes in Guto Gidda district. The study relied on qualitative data collected through in-depth interviews. Nvivo was used to generate themes and the themes were analysed using netchain analysis to understand the various drivers of LED processes. Institutional analysis was used to understand the relevance of local institutions to LED processes.

Conceptually, this study views LED processes from a different perspective from the narrow locality-focused ethnographic studies. By exploring the economic relationships across Nekemte Town and its hinterlands in Guto Gidda district, this study posits that rural-urban linkages are the central to understanding LED process. LED and the subsequent development policy practices in Ethiopia encourage a traditional dichotomous approach to LED processes focusing on the urban areas with inadequate attention to the contributions of rural areas in the LED processes. Given the resources flows between Nekemte and its surroundings and the mutual development between the two areas, it is necessary to understand rural-urban linkages to foster LED processes. This study advocates that LED processes link urban areas with the surrounding rural areas, thus greatly contributing to the development policy formulation of the country and beyond. It particularly challenges the dichotomous LED processes in action in Ethiopia that focuses mainly on urban areas.

In a democratic country, decentralisation is a key guiding principle of governance. it plays an instrumental role in improving service delivery (Fritzen & Lim 2006). It also brings policy-makers closer to the public to voice their demands and monitor the performance of service

delivery. Decentralised governance in Ethiopia (like elsewhere) encourages a separate administrative structure between urban and rural areas. Municipalities are responsible for governing urban areas and district offices are concerned with rural governance. However, geographically, in a district, urban areas are surrounded by villages. For instance, Nekemte Town is located at the cradle of Guto Gidda district. Given the practical significance of rural-urban linkages proved in this study on the one hand and the principle of decentralisation that gives separate administrative structures to the two areas on the other hand, there is a need to further examine how to reconcile these two contradictory policy approaches of development.

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Appendices

Appendix I: ***Participant Consent***

[Rural-urban linkages and local economic development In Nekemte and its surroundings, Oromia, Ethiopia]

Please note that this information sheet is for interview participants

1. I agree to take part in the research study named above.
2. I have read and understood the Information Sheet for this study.
3. The nature and possible effects of the study have been explained to me.
4. I understand that the study involves analysis of local economic development interactions between Nekemte Town and its surroundings.

   I agree to take part in a 40 minute (approx.) interview and understand that I will also have the chance to review and correct the transcript of my interview. I also agree that the interview may be audiotaped where necessary for this particular study.

5. I understand that participation involves no risk(s) that is foreseeable at this point.
6. I understand that all research data will be securely stored on the University of Tasmania premises for five years from the publication of the study results, and will then be destroyed **or**

I understand that all research data will be securely stored on University of Tasmania premises for five years from the publication of the study results, and will then be destroyed unless I give permission for my data to be archived.

7. Any questions that I have asked have been answered to my satisfaction.
8. I understand that the researcher(s) will maintain confidentiality and that any information I supply to the researcher(s) will be used only for the purposes of the research.
9. I understand that the results of the study will be published so that I cannot be identified as a participant.
10. I understand that my participation is voluntary and that I may withdraw at any time without any negative effect on me.

    If I wish to withdraw, I may request that any data I have supplied be withdrawn from the research until 15 days from the date of the data collection **or** I understand that I will not be able to withdraw my data after completing the interview as data interview will be anonymously collected.

Participant's name: _____

Participant's signature: _____

Date: _____

Statement by Investigator

☐ I have explained the project and the implications of participation in it to this volunteer and I believe that the consent is informed and that he/she understands the implications of participation.

If the Investigator has not had an opportunity to talk to participants prior to them participating, the following must be ticked.

☐ The participant has received the Information Sheet where my details have been provided so participants have had the opportunity to contact me prior to consenting to participate in this project.

Investigator's name: Megerssa Tolessa

Investigator's signature: _____

Date: _____

Appendix II: Interview Schedule (Maize farmers)

INTERVIEW SCHEDULE (maize farmers)

Rural-urban linkages and local economic development in Nekemte and its surroundings, Oromia, Ethiopia

[The research is part of the study programme for an award of Ph.D. at the Institute for Regional Development, University of Tasmania, Australia. The purpose of the research is to carry out field assessment of how maize and maize value chain affects local economic development in the study area].

I ask your permission to record the interview which will be used only for this particular study. The information obtained will be treated confidential and shall only be used for the purpose of this academic research.

Part I: Reference Information

Date of Interview	
Name of the FA	
Interviewee ID	
Results of Interview (Tick appropriate box) • Complete ☐ • Incomplete (to be continued on an agreed date) ☐ • Incomplete (Refused to continue with interview) ☐ • Incomplete (Other, specify…….)	

Part II. General Information

Age: …… Sex: ……

Level of Education:

No education..... Non-formal education.....Elementary education.....

Junior education..... High school .....Other.....

Family size: ..... Agricultural land area owned in hectares.....

Your role in the farming business……..

Part III. Farm Background and production processes

1. From your estimation how many hectares of maize farm do you have?
2. What type of maize variety are you currently using and where do you get it?
3. What is the productivity or yield per hectare you get from maize variety you currently grow?
4. Is it satisfactory? If yes why? ……..

5. If not, what are the major reasons for low results? (indicate all possible reasons)

Part IV. Maize and niger seed value chain and relationships between the value chain actor

6. Considering the last harvest, what proportion of your maize do you consume (including fresh consumption) and sell?
7. Who are the final customers of your maize?
8. How do you transport maize to market?
9. Do you have specific customers/buyers who buy your maize?
10. Who are involved in the sales of your maize? Brokers, intermediaries, commission agents, traders, transporters, etc.?
11. How do you evaluate the involvement of these byers in the grain trading with the income you gain from the sale?
12. If you have contact with buyers, how often are you in contact with them?
13. Suppose you are in financial difficulty, do you think the buyers would advance some money to you to pay back later?
14. If yes, have you ever received such a cash advance before from your buyers?
15. How would you describe your relationship with the buyers and other stakeholders indicated below in your locality? Please respond by saying ‘yes’ or ‘no’ when I ask you of the relationships. You may also need to further explain the type of your relationship if it is formal or informal, or trust-based or not; and frequency of the visit.

	Farmers	Cooperatives	Traders	Millers	DAs	Rural Banks	Farmer Asso.	ECX
Farmers								
Cooperatives								
Traders								
Millers								
DAs								
Rural Banks								
Farmer Asso.								
ECX								

Part V. Problems

16. What are the major problems in maize production, post-harvest, marketing and transportation in your area?
    - Production related problems:_____
    - Post-harvest related problems:_____
    - Market related problems:_____
    - Transport related problems: _____
17. When your income decreases or increases, how do you adjust expenditure and income change?

Part VI. Production calendar and agricultural inputs

18. Please indicate maize activity calendar in your locality, mark with(√)

Main activity	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jul	Aug
Land preparation												
Ploughing/cultivation												
Weeding												
Harvesting												
Marketing												
Low price time												
Medium price time												
High price time												

19. Do you use fertilizers in your maize production?
20. If yes how do you evaluate the effects of fertilizer on the yield before and after application of the fertilizers?
21. If no why do not you use it?
22. What criteria buyers use to select their maize orders? Please explain the list of criteria's set by buyers in the marketing of maize?
23. How does the office of agriculture empower the small-scale maize farmer like you, in upgrading his/her production?

Part VII. Information sourcing and usage

24. Where do you get information about price and other market-related issues of maize products? (For instance, from radio, TV, extension workers, other farmers, middlemen brokers).
25. How do you evaluate the information you get from those sources?
26. What are some of the difficulties you encounter in making sure that your farm improves and produce more maize products?
27. How does learning and sharing of information with DAs, other farmers and/or buyers and millers help to enhance your maize production?
28. How do the changes in the local maize market and falling maize commodity prices affect your livelihood as a farmer?

Part VIII. Power

29. In what ways can your voice as farmer be heard in negotiating for better maize price?
30. In your own view, what measures can you take as a farmer to influence middlemen and millers to offer high producer prices?

Part IX. Further comments

31. Do you have any other thing to say concerning the production, consumption, and selling of your products?

THANK YOU FOR YOUR TIME

Appendix III: Interview Schedule (Niger seed farmers)

INTERVIEW SCHEDULE (NIGER SEED farmers)

Rural-urban linkages and local economic development in Nekemte and its surroundings, Oromia, Ethiopia

[The research is part of the study programme for an award of Ph.D. at the Institute for Regional Development, University of Tasmania, Australia. The purpose of the research is to carry out field assessment of how maize and niger seed value chain affects the local economic development in the study area].

I ask your permission to record the interview which will be used only for this particular study. The information obtained will be treated confidential and shall only be used for the purpose of this academic research.

Part I: Reference Information

Date of Interview	
Name of the FA	
Interviewee ID	
Results of Interview (Tick appropriate box) • Complete ☐ • Incomplete (to be continued on an agreed date) ☐ • Incomplete (Refused to continue with interview) ☐ • Incomplete (Other, specify…….)	

Part II. Interviewee background information

Date: ……

Age: ……Sex: ……

Level of Education :

No education ..... Non-formal education.....Elementary education .....

Junior education .....High school .....Other .....

Family size: .....Agricultural land area owned in hectares.....

Part III. Questions related to socio-economic background of farmers

1. How and where do you get niger seed for cultivation?
2. From your estimation how many hectares of niger seed farm do you have?
3. How do you harvest your niger seed products? Do you harvest by yourself or with your family or you hire the services of labourers?
4. If you engage labour services, how much do you pay laborers per day?

5. Does the labourer do the reaping/harvesting, chaffing and picking at the same time to earn the daily wage?
6. What proportion of your niger seed product do you use for home consumption and what proportion do you sell?
7. If you use the niger seed for home consumption, how do you use?
8. Where and to whom do you sell your niger seeds?
9. To which buyer or groups of buyers do you normally sell your niger seed?
10. How do you transport maize to market?
11. Suppose you are in financial difficulty, do you think the buyers would advance some money to you to pay back later?
12. If yes, have you ever received such an offer before from your buyers?
13. How would you describe your relationship with these buyers and other stakeholders indicated below in your locality? Please explain your relations ships in detail.

	Linkages and Networks*				Nature of the relationship if linkages exist**				Level of trust relationship if linkages exist***				Frequency of meeting/month ****			
	F	C	T	P	F	C	T	P	F	C	T	P	F	C	T	P
Farmers (F)																
Cooperatives (C)																
Traders (T)																
Processors (P)																

*:1=yes; 2=no

**:1=informal; 2=verbal arrangements; 3=written Arrangements

***:1=distrust; 2= no trust; 3=little trust; 4=some trust; 5= full trust

**** 1: once; 2=twice; 3=three times; 4=four times; 5= more frequently; 6=irregularly

14. After the buyers have bought the niger seeds what do you think they do with the niger seeds?
15. Do you use fertilizers in your niger seed production?
16. If yes how do you evaluate the effects of fertilizer on the yield before and after application of the fertilizers?
17. If no why do not you use it?
18. Do extension workers visit your farm?
19. If they do, how often do they visit?
20. Do you receive any form of micro- finance to buy inputs such as fertilizers and agrochemicals for your farming activities?
21. If yes from which do you get the service?
22. How did that help to improve your farming activities?
23. What criteria buyers use to select their niger seed orders? Please explain the list of criteria's set by buyers in the marketing of niger seeds?
24. Where do you get information about price and other market-related issues of niger seed products? (for instance from radio, TV, extension workers, other farmers, middlemen brokers)
25. How do you evaluate the information you get from those sources?
26. What are some of the difficulties you encounter in making sure that your farm improves and produce more niger seeds?
27. How does learning and sharing of information with DAs, other farmers and/or buyers and processors help to enhance your niger seed production?
28. How does change in the local niger seed market affect your livelihood as a farmer?
29. How does the office of agriculture empower the small-scale niger seed farmer like you, in upgrading his/her production?

30. In what ways can your voice as farmer be heard in negotiating for higher niger seed price?
31. In your own view, what measures can you take as a farmer to influence middlemen and processors to offer high producer prices?

Do you have any other thing to say concerning the production, consumption, and selling of your product?

THANK YOU FOR YOUR TIME

Appendix IV: Interview Schedule for Processors (Millers and Edible oil processors)

Interview Schedule for Processors (Millers and Edible oil processors)

Rural-urban linkages and local economic development in Nekemte and its surroundings, Oromia, Ethiopia

[The research is part of the study programme for an award of Ph.D. at the Institute for Regional Development, University of Tasmania, Australia. The purpose of the research is to carry out field assessment of how maize and niger seed value chain affects the local economic development in the study area].

I ask your permission to record the interview which will be used only for this particular study. The information obtained will be treated confidential and shall only be used for the purpose of this academic research.

Part I: Reference Information

Date of Interview	
Name of the FA/Town	
Interviewee ID	
Results of Interview (Tick appropriate box) • Complete ☐ • Incomplete (to be continued on an agreed date) ☐ • Incomplete (Refused to continue with interview) ☐ • Incomplete (Other, specify…….)	

Part II. Interviewee background information

Date: ……

Age: ……Sex: ……

Level of Education:

No education..... Non-formal education.....Elementary education.....

Junior education..... High school .....Other.....

Type of business (edible oil processor/miller).....

Region:_____; Zone:_____; District:_____; PA/Sub-city: _____

Sex(M/F)_____ Age: _____

1. How long since you have started edible oil/maize processing?
2. From whom do you buy maize grain/niger seed and how do you get it?
3. How do you store maize grains/niger seed ready for grinding/processing?
4. To whom do you sell maize flour/edible oil?

5. Please indicate your costs, transaction volume and price of maize flour/oilseed trading just last one month.

Type of processing	Quantity of maize/niger seed purchase (qt/month)	Purchase prices (Bir/kg)	Sales prices (Bir/kg)	Transportation cost (Bir/qt)	Loading/ unloading cost (Bir/qt)	packing	Other costs
Maize flour							
Edible oil							

6. Please indicate the relationship you have with other organisations indicated below.

	Linkages and Networks*				Nature of the relationship if linkages exist**				Level of trust relationship if linkages exist***				Frequency of meeting/month ****			
	F	R	I	P	F	R	I	P	F	R	I	P	F	R	I	P
Farmers (F)																
Retailers (R)																
Intermediaries (I)																
Processors (P)																

*:1=yes; 2=no

**:1=informal; 2=verbal arrangements; 3=written Arrangements

***:1=distrust; 2= no trust; 3=little trust; 4=some trust; 5= full trust

**** 1: once; 2=twice; 3=three times; 4=four times; 5= more frequently; 6=irregularly

7. What are the major problems in maize and niger seed harvest, marketing and transportation in your area? (Post-harvest related problems?/market related problems?/transport related problems?)

8. What are the possible challenges you face to expand milling/edible oil production business?
9. What are the risks associated with owning and operating a mill/edible oil processing?

THANK YOU FOR YOUR TIME

Appendix V: Interview Schedule (Traders/Intermediaries)

Interview Schedule (TRADERS/INTERMEDIARIES)

Rural-urban linkages and local economic development in Nekemte and its surroundings, Oromia, Ethiopia

[The research is part of the study programme for an award of Ph.D. at the Institute for Regional Development, University of Tasmania, Australia. The purpose of the research is to carry out field assessment of how maize and niger seed value chain affects the local economic development in the study area].

I ask your permission to record the interview which will be used only for this particular study. The information obtained will be treated confidential and shall only be used for the purpose of this academic research.

Part I: Reference Information

Date of Interview	
Name of the Town/FA	
Interviewee ID	
Results of Interview (Tick appropriate box) • Complete ☐ • Incomplete (to be continued on an agreed date) ☐ • Incomplete (Refused to continue with interview) ☐ • Incomplete (Other, specify…….)	

Part II. Interviewee background information

Date: ……

Age: ……Sex: ……

Level of Education :

No education..... Non-formal education.....Elementary education .....

Junior education ..... High school .....Other .....

Type of business (wholesale, retail, middle person).....

1. Where exactly do you come from to buy niger and maize seeds?
2. How often do you buy niger seed and maize from the farmers?
3. How many kilograms of niger seeds and maize do you buy at a time?
4. Do you buy the niger seeds and maize directly from the farmer(s) or from others? If from others who are they?
5. Are there differences in price between buying directly from the farmer(s) and buying from others? If yes can you explain it?

6. Where do you sell the niger seed and maize you buy?
7. Who determines the prices of the niger seed and maize?
8. Prices of goods and services are fixed by taking into consideration the general prices of goods and services in the country by the Ethiopian Commodity Exchange (ECX). In fixing niger seed and maize prices do you consider this prices at the national level?
9. How would you describe your relationship with the farmer(s) and other organisations indicated below? Please indicate below.

	Linkages and Networks*						Nature of the relationship if linkages/networks exist**						Level of trust relationship if linkages/networks exist***							Frequency of meeting/month ****				
	F	C	T	P	E	A	F	C	T	P	E	A	F	C	T	P	E	A	F	C	T	P	E	A
Farmers (F)																								
Cooperatives (C)																								
Traders (T)																								
Processors (P)																								
ECX (E)																								
Farmers Asso. (A)																								

*:1=yes; 2=no

**:1-informal; 2=verbal arrangements; 3=written Arrangements

***:1=distrust; 2= no trust; 3=little trust; 4=some trust; 5= full trust

**** 1: once; 2=twice; 3=three times; 4=four times; 5= more frequently; 6=irregularly

10. Give some instances where you have assisted farmers during their difficult moments without mentioning their names.
11. Have you ever experienced any disappointment on the part of the farmers you trade with for not supplying you the right quantity of niger seed and maize?
12. What do you think the farmers can do to improve their work and get a higher yield?
13. Do you tell the farmers about prevailing market conditions such as how consumers see the quality of the niger seed and maize they produce?
14. Describe briefly the process of selling niger seed and maize in your district?
15. How often do the niger seed and maize market price change?
16. What influence does the Farmers' Associations in the community have in determining the prices of niger seed and maize?
17. How would you describe the general living conditions of farmers you trade with? Are they able to pay their children's school fees and take care of their health needs without much recourse to you for financial support?
18. Do you have something to say on the maize and niger seed trading in this district which could help me in this study?

THANK YOU FOR YOUR TIME

Appendix VI: Interview Schedule (District Agriculture Office)

Interview Schedule (District Agriculture Office)

Rural-urban linkages and local economic development in Nekemte and its surroundings, Oromia, Ethiopia

[The research is part of the study programme for an award of Ph.D. at the Institute for Regional Development, University of Tasmania, Australia. The purpose of the research is to carry out field assessment of how maize and niger seed value chain affects the local economic development in the study area].

I ask your permission to record the interview which will be used only for this particular study. The information obtained will be treated confidential and shall only be used for the purpose of this academic research.

Part I: Reference Information

Date of Interview	
Position/responsibility	
Contact person	
Results of Interview (Tick appropriate box) • Complete ☐ • Incomplete (to be continued on an agreed date) ☐ • Incomplete (Refused to continue with interview) ☐ • Incomplete (Other, specify…….)	

Part II. General information

Age: ……Sex: …… Position/job title in the office……

Educational level: Primary: ……Secondary: ……...Tertiary: ……

Date: ……

Niger seed and maize netchain related questions

1. What are the different (core) processes/functions in the niger seed and maize netchain in this district?
2. Who are the actors involved in these processes and what do they actually do?
3. How do you evaluate the flows of product, information, and knowledge in the niger seed and maize netchain in your district?
4. Where do the products (or service) originate from and where do they go?
5. How does the value change throughout the chains of niger seed and maize?

6. What types of relationships exist between and among firms of niger seed and maize netchains and how do you evaluate this relationship (Cooperative? Competitive? Rival?)
7. Who are the dominant role players in the niger seed and maize netchains in this district?
8. What is/are the main role you play in niger seed and maize production and marketing in the district?
9. Where and to which group do the farmers sell their niger seeds and maize products?
10. Apart from local buyers, there are some buyers from neighboring districts, zones or regions who also come here to buy niger seeds and maize. Where do they come from?
11. In what ways does your office monitor the production and marketing of niger seed and maize, and its related products such as niger seed oil in the district?
12. How do you describe your interactions with other actors of the niger seed and maize chain?

Questions related to agricultural input supplies and other supports to the niger seed and maize farmers.

13. What types of inputs do the farmers use to improve their niger seed and maize farming production?
14. How does learning and sharing of information upgrading niger seed and maize production?
15. What extension services does the agriculture office give to niger seed and maize farmers in the district?
16. From your experience as a technical staff, what are some of the difficulties the farmers face in producing and marketing niger seeds and maize in the district?
17. How can more efforts be mobilized to improve the technology, knowledge and innovations to increase production?
18. Which areas, if any, need more improvements as far as the niger seed and maize industries are concerned?

19. Do the farmers receive any form of micro- finance to buy inputs such as fertilizers and agrochemicals for their farming activities?
20. How do you participate in the activities of the Farmers Associations in communities you work in?
21. How does agriculture office empower the small-scale niger seed and maize farmers in upgrading their processings?
22. How can you (agriculture office) make sure that farmers have a big say in fixing prices of niger seed and maize, and do not be exploited by middlemen and processors?
23. What other strategies do you use help local farmers to compete and to improve income/production?
24. What bottlenecks prevent empowerment of small-scale farmers' production?
25. Do you have any other comments to make concerning niger seed and maize production, processing and marketing and its contributions to the local economic development in this district in general?

THANK YOU FOR YOUR TIME